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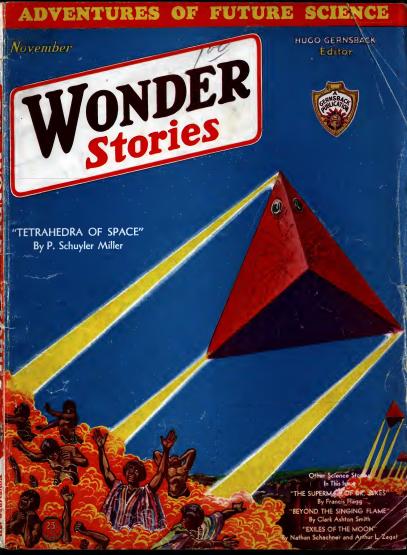
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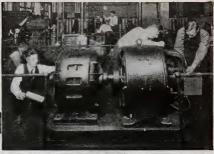
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ON THE COVER this month, taken from P. Schuyler Miller's "Tetra-hedra of Space" we see the great crystalline monsters spreading death and destruction, by means of the yellow ray, among the superstituous South American Indians. The inner structure of these super-intelligent crystal lite forms may be seen.

NEXT MONTH

"THE TIME STREAM"

by John Taine

is our feature story for the December issue

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The forbidden love of a man for a woman, defying the edict of the powerful board of scientists that they must not marry, is what sets in motion great cosmic forces and the upheaval of two worlds.

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WONDERS OF THE STARS

By HUGO GERNSBACK

ECENTLY a scientist came forward with the idea that some stars need not, necessarily, be so far away as spectrographic measurements seem to indicate. He set forth the hypothesis that many stars found in the neighborhood of the Milky Way, of which our own Sun and its planetary system are a part, are immersed in very fine, tenuous dust clouds which make these stars appear

dimmer than they are in actuality. The reasoning is somewhat as follows: You see a distant increasoning is somewhat as notions: you see a distain star and take spectrographic analysis and measurements; but the tiself, but only its light filtered through the dust. This interven-ing substance, naturally, would make the star seem less bright, and would also cause the difference in the spectral analysis. The reasoning here is analogous to an everyday phenomenon;

when we look at the sun or the moon nearly overhead they are of course most brilliant. To the contrary, when they are viewed near the horizon, they appear red. The reason for this, of course, is that when we look directly overhead the rays coming to us, from either the sun or the moon, pass through the min imum amount of atmosphere, which is somewhere around 300 miles; whereas, at the horizon, we are viewing rays refracted through some 1600 miles of atmosphere which, naturally, dims the rays

Of course, our earth's atmosphere, thin as it is, is yet so in-conceivably more dense than the "dust clouds" of outer space that there really can be no comparison between the two. The dust clouds of which this particular scientist speaks are far thinner and far more tenuous than the best vacuum which we can produce on earth in our most up-to-date laboratories. But, when you view a star some thousands of light years away, even though the fine dust particles should be thousands of miles separated, yet there is such a tremendous number of them directly in the line of vision between us and the distant star, that they are sufficient to account for a considerable dimming of the star. It should always be remembered that, when we deal with astronomical figures and astronomical distances, the final results amount to gigantic totals.

It is interesting to note that the scientist in question holds that his observations are true only of stars in the direction of that his observations are true only of stars in the direction of the Milky Way, which is the island universe to which our own planetary system belongs. It is now known that we are somewhere not far (astronomically speaking) from the center of this lentil-shaped nebula which is our cosmic home, and for this central it is easier to the control of the this reason it is certain that the entire space contained in or about the Milky Way must be filled with some matter, sufficiently dense to give a number of remarkable phenomena such as the one above cited.

But when we leave the Milky Way, at a sufficient distance from it, the above mentioned authority finds that the cosmic dust is much less dense than in our own system. For that reason, the calculated distances of stars beyond the Milky Way should be more nearly correct. But of this, too, we cannot be certain; because it is believed today that no part of space is entirely empty.

Take our own earth and its atmosphere. It is well known that in the upper reaches, because of the lessened gravitation on the finer gas particles, the earth is continuously losing atmospheric particles into space. And although, in comparison to the tremendous extent of outer space, the amount so lost is insignificant, yet if the cosmic dust thrown out by the sun and all other stars is taken into consideration, a minute's thought must reveal that in the course of the ages, amounting to billions upon billions of years, quite a good deal of star dust must have found its way into free space. It is quite certain that, if this were not the case, that we would see thousands of times more stars in the heavens than we now actually see. As we look further and further into the heavens, and the mass of particles intervening between distant stars and us increases as well, so much light is cut off that perhaps the greater majority of stars in the universe remain invisible to us—just as a large city, with millions of bright lights, becomes invisible in a dense fog when viewed from a distance.

TETRAHEDRA OF SPACE



(Illustration by Paul)

Marston was speaking to the tetrahedra with the voice of his great drum. The giant was startled. Could we misshapen monstrosities be rulers of a planet equal to themselves?

TETRAHEDRA OF SPACE

By the author of "The Man from Mars", "Dust of Destruction", Etc.



MOON of mottled silver swam in the starflecked sky, pouring its flood of pale light over the sea of blue-green vegetation that swelled up and up in a mighty, slow wave to break in the foaming crest of the Andes. The shadow of the

plane raced far below, dipping into the troughs, breasting the summits of that vast, unbroken sea of emerald stretching on and on beyond reach of vision.

And the stars-blinking Mira nearly overhead, great Formalhaut blazing over the far off mountains, and to the

south a host of exotic strangers, burning with a fire that we of the north seldom know-clustered like great, glowing fireflies around the invisible Pole. But I paid little heed to moon and stars and silvered jungle, for night had caught me unawares, and it is no simple matter to lay down supplies in a little clearing, marked only by a flickering camp-fire, lost somewhere among the jungles of Brazil.

Or was it Brazil? Here three great states mingled in an upland of forest and mountain and grassy valley-Peru, Bolivia, Brazil. Here ancient races had made their home, raised their massive temples in the little valleys, wrested a fortune from the mountains, given their lives to the jungles-a peo-

ple more ancient by far than those others beyond the ranges whom the Incas conquered. Here none had come before to study, yet now, somewhere in the gloom beneath me, was a little oval valley hung midway between crag and forest, and there would be the tents and fires of scientists, men of my own world.

I must swoop and circle and loose my load, then soar off into the silver night like some great moth spurning the flame, out into the world of the moon and the jungles, back to the government that had sent me, to plunge once more into the hum-drum routine of government flight, the moon and the silvered jungle forgotten and forever gone.

But there came no glimmer of flame in the darkness, no flicker of white tents in the moonlight. Alone the outflung cross of the plane swam the unbroken sea of green, dark and boding against its wan beauty. It takes little error of judgment to miss a tiny clearing in the dark. So, as the western ranges crept out of their alignment, I swooped and soared, and was roaring back, higher now, over the silent moon-lit forests.



P. SCHUYLER MILLER IN SCIENCE fiction, almost every variation of

life forms as we know them has been used

But in practically all cases the authors as-

by authors, in their picturing of creatures from

sumed the life to be made essentially of proto-

plasm-of organic compounds of carbon, hy-

drogen, oxygen and nitrogen. The life on other worlds was assumed to differ from our own only

Yet we must realize that other worlds may

hold life forms that are not protoplasmic-that

are not made up of what we call organic mole-

cules. It may have been only an accident on

earth that caused organic life to come into be-

crystalline life, possessed of qualities that we

call intelligence, possessed of the power to move

about and even to build and create, may not

inhabit our sister planets. Mr. Miller uses this

idea to build up an adventure story in which

three different civilizations meet in a struggle

There is no reason in fact why some form of

in size, shape, color, habits, etc.

But one gap had I seen in the jungle-a harsh, black scar seared by some great fire from the bowels of the planet, ugly and grim in the soft beauty of the night. Again it slipped beneath, and as the shadow of the plane vanished against its harsh blackness it seemed to me that there came a scurry of furtive motion, an instant's flicker of shadow against its deeper gloom. I half checked the course of the plane, to wheel and search it closer, then of a sudden the air about me blazed with a dull crimson fire that burned into my body with a numbing fury of

unleashed energy, the drone of the engines gasped and died, and we were spinning headlong toward the silver sea beneath!

As it had come, the tingling paralvsis passed, and I flattened out the mad dive of the crippled plane, cut the ignition, and dived over the side. As in a dream I felt the jerk of the parachute, saw the deserted plane, like a huge, wounded bat of the jungles, swoop and check and swoop again in a long flat dive that broke and pancaked into the upper reaches of the forest. Then the heavy pendulum of my body alone beat out the dull seconds as I swung and twisted beneath the silken hemisphere of the 'chute. And then the leafy boughs, no longer silver but like

hungry, clutching talons of black horror, swept up and seized me. I crashed through a tangle of vine and brittle bough into a hot, sweet-scented darkness where little hidden things scurried away into

the night and the silence. The rain-forest is like a mighty roof stretched over the valleys of tropical America. Interlacing branches blot out the sun from a world of damp and rotting dark, where great mottled serpents writhe among tangled branches and greater vines strangle the life out of giants of the forest in the endless battle for light. And there are little, venomous things of the dark ways-savage two-inch ants with fire in their bite, tiny snakelets

whose particolored beauty masks grim death-creatures of the upper reaches and of the glorious world above the tree-tops. With the sunrise, a blaze of life and flaming color breaks over the roof of the jungle-flame of orchid and of macaw, and of the great, gaudy butterflies of this upper world. Beneath, there comes but a brightening of the green gloom to a wan half-light in which dim horrors seem to lurk and creep and watch, and giant

to the death, and a terrific upheaval results.

other worlds.

ing at all.

lianas twist and climb up and ever up to the living light. And lowest of all is death and damp decay—the dull, sodden carpet of mold and rotting vegetation where fat, white grubs burrow in blind fear and huge centipedes scurry underfoot.

The sun was an hour gone when I fell, but it was not until its second coming when I managed to writhe and slip through the tangle as if I too were of the jungle, moving toward the spot where my memory placed that blasted clearing, and the light. And with the deepening of the gloom in the upper branches, I came upon it, quite

by accident, from above.

It was a little valley, perhaps a mile long and two thirds as wide, lying in an oval of glittering jet against the side of the mountain. Here the Andes were beginning their swift climb up from the jungles to the snows, and beneath me fifty-foot cliffs of sheer, black rock dropped to

the valley floor.

I have spoken of it as blasted, seared into the living heart of the jungle. It was all of that, and more! There was a gentleness in its rocky slopes that spoke of centuries of hungry plant-life, prying and tearing at jagged ledges, crumbling giant boulders, dying, and laying down a soft, rich blanket of humus over the harsh, under-rock, forming a little garden-spot of life and light in the dark heart of the forest.

Then came fire—an awful, scourging blast of fierce heat that even Man's Hell cannot equal! It blasted that little valley, seared its verdant beauty horribly, crumbling blossoms and long grasses into dead white ash, stripping the rich soil of past ages from its sleeping rocks, fusing those rocks into a harsh, glittering slag of seared, burnt black, cold and dead and danned! The sheer cliffs of its sides, once draped with a delicate tracery of flowered tendrils, had cloven away under the terrible heat, split off in huge slabs of the living rock that had toppled into the holocaus beneath and died with the valley.

The few thin shrubs that screened me at their summit showed blackened, blistered leaves and twigs, though here the heat had been least. As no other spot on Earth that little upland valley was awfully, terribly dead, yet at its center something moved!

AGERLY, fearfully, I peered through the gathering totals. Full and golden, the moon was rising over the forest, throwing new shadows across the valley floor, brightening new corners, revealing new motion. And as its smoky orange cleared to white gold and waned to limpid silver, that glorious light seemed to soften the harsh jet of the valley. It wakened a lustrous opalescence in the two great spheres that nestled like mighty twin pearls against the dark rock, to create beings of the rock and of the shadow, gliding wraithlike among the shattered boulders!

Painfully I crept through the dense growth of the brink, nearer to those great spheres and their dreafful cargo. Within me my brain whirled and throbbed, my throat froze against the cry of shecked incredulity that rushed to my lips, cold, clammy sweat oozed from gaping pores! It was beyond all reason—all possibility! And yet—it west? Now! could see them clearly, rank on rank of them in orderly file, some hundred of them, strewn in great concentric rings about the softly glowing spheres—harsh as the black rock itself, hard, and glittering, and angular—a man's height and more from summit to base

-great, glittering tetrahedra-tetrahedra of terror!

They were tetrahedra, and they were alive—living even as you and I! They stirred restlessly in their great circles, uneasy in the dim light. Here and there little groups formed, and sometimes they clicked together in still other monstrous geometric shapes, yet always they moved with an uncanny stillness, darting with utter sureness among the scattered rocks. And now from the nearer of the twin spheres came another of their kind, yet twice their size, the pearly walls opening and closing as by thoughtmagic for his passing! He swept forward a little, into the full light of the moon, and the rings followed him, centered about him, until the spheres lay beyond the outermost and the giant tetrahedron faced alone the hosts of his lesser fellows!

Then came their speech—of all things the most mindwracking! I felt it deep within my brain, before I sensed it externally, a dull, heavy rhythm of insistent throbbing, beating at my temples and throwing up a dull red haze

before my staring eyes!

And then I knew it was no fancy—that the great things of the blasted valley were indeed speaking, chanting, in low, vibrant monotone that beat physically upon me in long, slow waves of the air! You have heard those deepest notes of a great organ, when the windows tremble, even the walls, the building itself vibrate in resonance, beat and beat and beat to its rhythm until you feel it throbbing against your skull, pulsing in your mind in a vast, relentless sea of thundrous sound!

Such was the speech of the tetrahedra, only deeper still beneath the threshold of sound—so deep that each tiny nerve of the skin sensed its monotonous pressure and shouted it to a reeling brain—so deep that it seemed like a great surf of more-than-sound thundering dismally

against desolate, rocky shores!

For it was without inflection—only the dull, dead beat and beat and beat and the those thro both thro him my pulsing brain, and bringing madness in its wake! I think now that it was a sort of chant, the concerted cry of all the scores of tetrahedra, dinning savagely, angrily at their giant leader in a dismal plaint of discontent and unease! I think they were restless, aware of unfulfilled promises and purposes, anxious to make sure their mission, or to be gone. I think that the seed of tetrahedral muttiny was sown among them, and that as angry convicts will drum at their prison bars and scream in monotone, even so these things of another world, another life-stuff, drummed their grievances at their mighty leader!

For soon I sensed a deeper, stronger voice beating against the din, drowning it out, thundering command and reproof, shouting down the mob until its lesser drumming sank to a mutter and ceased. But the voice of the giant tetrahedron rang on, inflected now as our own voices, rising and falling in angry speech and command, pouring out burning sarcasm, perhaps, cowing them with

its greater insistence!

Like all great leaders, his followers were as children to him, and the hard, harsh beat of sound swept off into a soothing, cajoling murmur of whispering ripples, tapping ever so lightly against the packed sand of some distant tropic beach, almost sibilant, if such a sound can be so, yet none the less dominant and definite in its message. And it sank to a far, hinting rumble and vanished.

For a long instant they lay quiet, like graven things of the stone itself, then through the circles, like a spreading wave, rose a thrill of slow motion, quickening, livening, until all were astir! The ranks parted, the giant
tetrahedron swept swiftly over the valley floor to the two
great spheres, his angular hordes flowing in swift, soft
motion in his wake! Again, with that speed and silent
nystery of thought, the spheres gaped open and the ranks
of the tetrahedra were swallowed up within! Alone, the
twin pearls of fire-flecked opalescence nestled among the
black rocks—great orbs of soft light, glowing with the
macic of the full moon.

For a long moment I lay there under the bushes at the cliff's edge, staring out over the valley, stunned by the weird unreality of the thing I had seen. Then, out of the dark behind me, came a hand, gripping my shoulder in a vise of iron! Mad with sudden terro! I twisted free, struck blindly at the thing that had seized me, a thing that fastened with the grip of a Hercules upon my flailing arms, pinioned them to my sides—a thing that spoke, its words a hoarse mutter that barely penetrated the gloom! "For God's sake, man, be still! Do you want them.

It was a man—a human like myself. My frozen tongue

stammered reply.
"Who are you? What are those things out there?

What Hell of Earth did they spring from?"
"None of Earth, you may rest sure!" came the grim
answer. "But we will tell you all that later. We must
get clear of this place! I am Marston of the Museum
expedition—the biologist. I suppose you are the aviator
—Valdez saw them burn you down last night. Follow

"Yes, I'm Hawkins. The plane is somewhere over there, if it didn't burn, with all your supplies in it. I was held up crossing the mountains. But tell me, first—those things, there—are they alive?"

"You've wondered that? I suppose anyone would. The Indians make them gods of a kind—realize they're beyond all experience and tradition. But I'm a biologist. I have had some experience in strange forms of life. They are as much alive as we—perhaps even more than we. After all, if life is energy, why should it not rest where it will? Need we—soft, puny things of carbon and water and a few unstable elements—be the only things to harbor life? But this is no place to moralize—come on!"

HE VANISHED into the dark, and I followed, plunging blindly after the sound of his crashing progress, away from the seared valley and the tetrahedra, to safety of a sort in the sombre depths of the rainforest.

They crouched beside a tiny fire of bark and twigs, like men of old Cro-Magnon, fifty thousand years ago—two gaunt skeletons hung and swathed with solled rags, brooding over their pitiful little flame. With the crackle of our approach they sprang at bay—two hunted things of the jungle—then relaxed as we came into the firelight.

I will always remember them as I saw them them— Hornby, the Museum archaeologist, tall, grey-haired, his laggard face seamed with deep wrinkles of sleeplessness and fear and puzzled wonderment. Valdez, his colleague of the government that had sent me, short, dark, his Portuguese blood blended with that of the squat tribes of the interior, teeth gleaming in a snarl like that of some great jungle eat, cornered, crazed, and dangerous! He seemed plumper than the others, and I felt that he could and would care for himself very well if need be.

Now, too, I saw my guide for the first time as something more than a black hulk in blackness. Marston, the biologist, looked like an old-time blacksmith, a massive man of bone and muscle, with keen grey eyes under heavy brows and the beginnings of a mighty beard. A Hercules, I have said—more like an Atlas, upholding the burden of this little wilderness world from the shoulders of one who could not and one who would not share it! Muscles that had had scant padding of reserve flesh now lacked it utterly, jutting like knotted tree-roots from his rugged frame, making him seem a being rudely hewn from some twisted typress stump by the master hand of a forest god, and given life.

"We're all there are, Hawkins," he rumbled, his unhushed voice bearing much of the quality of the speech of the tetrahedra. "We've got to find that plane soon. if it's still whole. Did you see flames, Valdez?"

"Flames, Senor Marston? No—as I have so often said, I saw merely the falling of the plane, like a great wounded bird seeking the shelter of the jungle, and Senor—Hawkins, is it—with his parachute. I am not certain that I can find it, now that a day and a night have passed, but I will try. With the guides gone, it is not easy to feed even three mouths—eh, Senor Marston?"

"Four is no worse than three, Valdez. I'm glad Hawkins is here. He's new blood, a new brain, and with his help we may lick the damn' things yet!"

Then Hornby's voice—dry and withered as his shrunken body—weary as his tired old eyes.

"You have seen the tetrahedra, Lieutenant Hawkins? You realize that they are living, intelligent beings? You can comprehend the menace of their presence here on our Earth?"

"Yes, Professor," I answered slowly, "I have seen them and heard them. I can see that they're not like anything I know of, on Earth or off, and that there is some sort of purpose behind them. But I saw them only in the half-light, for a few moments at best. They had a great leader, twice the size of any of them, and the rest seemed to be dissatisfied with the way he was running things."

"You hear that, Marston?" cried the Professor, almost savagely. "You hear—they are impatient—they will act, soon, as soon as they have fed again! We dare not wait longer! We must do something, Marston—we must act —now!"

"Yes, I saw them too," said Marston slowly. "They're on the brink, all right. But I don't know what we can do —four men with three rifles and a couple of machetes against a hundred of them and what they can do. I don't know that we can even puncture one—they look almighty hard to me!"

"Marston," I put in eagerly, "fit it's guns you want, there are two machine-guns and plenty of ammunition in the plane—it was a government ship, fresh from the uprising in the North. If we can find that, there'll be guns as well as food. I think I could find it, from the valley, in daylight."

"Valdez—you hear that? Can you help him search? You are the one who saw him fall, and you have been out with the Indians more than once. How about it?"

"Very well, Senor Marston, I will do what I can. But

do not hope for too much—remember, there has been a day and a night, and I had only a glimpse. And the guns—what can they do against those devils from the spheres? We are fools to stay here, I tell you—we would do better to flee, now that there is food, and warn the world of what has come upon it!"

"I've heard that stuff preached before, Valdez. Stow it! If it comes to amouncing them to the world, those things will do it for themselves faster than we could! It would be our own hides we'd be saving, and that not for long! Besides, you know the reputation these Indians have, once they're roused! Looks like you're the fool of the lot, Valdez. You'll hunt with Hawkins in the morning!"

Professor Hornby had said little—he merely crouched against a tree, staring blankly at the flames. Now, at

Marston's words, he roused again.

"Marston," his voice came petulantly, "have you seen the Indians in the forest, as I have? Have you seen them, felt them staring at your back, fingering their little darts in the dark? Marston, they take those tertahedra for gods, or devils—things to worship and proprietae with sacrifice! The forest is full of them—I feel it—I can tell! Marston, what are they doing?"

CHAPTER II

The Coming of the Tetrahedra

"ARSTON'S bluff rumble drowned out that final wail. "Sure, Prof, they're here, all right-all about us, out there in the jungle with the beasts. I can feel them too-watching us from the dark. But they're harmless-just inquisitive, that's all. It's the things yonder that draw them-gods, maybe, or devils, like you said, but something out of old times and old tales, when the Old People had their forts and palaces here under the shadow of the hills. It's a legend come true, for them, and until they find out different, I reckon they link us with the things that have appeared in the place where we used to be-we, with our white magic and our questions of the Old People. They're not apt to hurt us for a while yet, but it won't hurt to slip a mite closer to the valley, where we can watch the things and keep the association fresh for the Indians."

Then Valdez slipped in his acid wedge of dissent, smoothly and blandly as ever, yet deadly sharp beneath

the flashing smile.

"You remember, of course, Senor Marston, that these poor Indios retain the superstitions of their ancient masters, and that in time of peril it was the way of the Old People to make blood sacrifice to their gods—the blood of their most holy priests! Old customs linger long among savages, Senor! You have a proverb, I think—"Out of sight, out of mind', is it not? There is truth in such old maxims, Senor Marston."

"Meaning we can skip out and let them forget us? We're not playing that game, as I think I've said before, Valdez. None of us—get that! We're staying, and we're fighting, just as soon as you and Hawkins locate those guns, which is tomorrow. Your memory will improve with a little sleep, I think. And, Prof—I reckon Hawkins here would like to hear about those things yonder. Tell him what there is to tell—you have it clearest of any of us, I guess."

And so, huddled there by the tiny, flickering fire, I

listened as the thin, dry voice of the old Professor marched through the awful story of the coming of the tetrahedra. It was graven deep in his mind, and with every telling the tale grew more vivid to him. Even now the sweat oozed from his face as he spoke, staring in fascination at the dying flames. The eyes of Marston and Valdez watched us across the embers and those other, unseen eyes in the darkness that hung its velvet shroud beyond the waning flicker of the fire-light, peered furtively out of the night.

They had come to the little valley in the hills, three white men and a half-dozen Indian guides from the more civilized tribes to the north. Here in its oval bowl they had made their camp among flowers and waving grasses, with the dark rampart of the jungle standing about them like the walls of a prison. And from those walls, in the end, came the Indians of the forests—poor, savage creatures hag-ridden by superstition and ignorance, wracked by famine and disease—a feeble remnant of those who had been servants to the Old People in days long gone.

For they treasured weird legends and aborted ceremonies where understanding of other things had passed. Perhaps they had never known the reality of the great deeds with which they had served the Masters—cunningly fitting huge boulders into smooth-cut walls and terraces, hacking long roads into jungle and mountain, eking out a livelihood for the decadent ruling race.

But true it was that they bore memories of things that even the savage mind can ponder, memories of magic and ritual, and the adoration of fierce and powerful gods. As the newer magic of this younger, paler race gripped their childish minds, they told of the things that their fathers before them had learned of grandfathers through the centuries, tales not only of custom and life in those long-gone days, but of cities swallowed up in the rainforest, cities of massive stone and untarnishing metal-"the metal of the Sun," that sleeps in long, fat serpents in the white rock of the mountains. In Hornby's old eyes gleamed a new, young frenzy of hope and joy, and in the little eyes of Valdez another, older lust-light wakened at the tale of the golden serpents. Marston saw it, but Marston had known that it would come, and he went about his study of the plants of valley and forest as if it had not been there-worked, and watched,

Then, one day—and Professor Hornby's hoarse voice sank almost to a whisper as he told of it—there came the little group of savages who were to lead the way to the buried ruins of a great city of the Old Ones, four little brown men with blow-guns and deadly darts, waiting patiently for the great White Ones to take up their magic and follow. Hornby had stepped to the door of his tent to call their chieftain to conference, and as he went he gazed up at the towering Andes, whence the Old Ones had sprung. There, drifting like wind-tossed bubbles just above the tree-tops, floated the spheres of the tetrahedra!

Gently they sank to rest at the other end of the little valley—lay there in the thick grass like the eggs of some huge moth out of fable. The Indians had fled in terror, but as Hardy and Marston raced down the slope toward the twin globes they sensed that furtive eyes would be peering from the undergrowth, half-tearful, half-wondering, waiting with timeless patience for new magic—new masters.

The three came to the spheres as they lay there in the

lush grass—Hornby, Marston, Valdez—and in each heart must have been something of the wonder that I in my titm had felt. For the spheres were unbroken by any opening, were as twin orbs hewn from mother-of-pearl, iridescent, with delicate hues of blue and rose tinting their snowy white, and yet there came a force from them, a tingling of excess energy that thrilled in every nerve and set their minds on edge with unwonted keenness!

It grew in strength, slowly, and it was Marston who first sensed its lurking hostility, who turned his gaze from the enigmatic spheres to see the long grasses about their bases wither and shrivel to soft grey ash under the blasting radiation! It was he who cried the alarm, and in sudden panic they fied a little way up the valley, to stand like startled sheep, then flee anew as the surge of energy poured forth in ever-quickening pulses from the opal spheres.

It swept all life before it into sudden, luxuriant growth that as suddenly dropped into blighted destruction! Be-side their tents, nearly in the shadow of the brooding forest, they stood at last and watched the slow torrent sweep the life of their little valley home into the sullen ash of death. And then its invisible van drifted up the slope to their feet, and again its subtle venom thrilled evilly in their veins, and they ran crazily, headlong, into the jungle!

BUT they could not long shun the brain-troubling enigma that had engulfed their little home. Marston, Hornby, Valdez-they struggled back and stared from the damp dark of the forest at the thing that was happening there in the sunlit oval on the mountainside. Then it was that Marston broke the spell of fear that had been laid upon him-seized rifles, blankets, food from the deserted tents in the ebbing of the invisible waves, and fled again as the second billow of devastation poured from the silent spheres! The grasses and delicate blossoms of the valley had passed under the first blight, but here and there grew hardier blooms and bushes, akin to the life of the forest, and higher forms of life-insects, rodents, birds. Again the wave of death surged, and again, and now they could see a faint flush of crimson burning angrily where it passed, a glow more of the atmosphere than of the blighted, seared life of the valley! Then, for a time, there came a lull-a peace almost of the days and hours when this little spot of light in the green dark was the home of happy, busy men-almost, yet not quite!

For there was a boding in it, an ominous sense of oppression, a tension of the very either, a stress that spread to mind and brain and sucked hungrily at the dazed consciousness! Now they saw that the spheres were alight with a cold green radiance that glowed vividly even above the glare of the sun upon the bleaching ash! Almost an incandescence they might have called it, yet there was no feeling of heat, only a great, overpowering energy that was being hurled from those unearthly spheres upon the little valley and its walling forests. And they were not wrong, for of a sudden, with an awful violence that shook even the stolid Marston, the storm burst in its full fury over the valley!

It did not touch the forests—indeed, it seemed to shun their cool, damp dark—and so the three could watch its awful progress and live. In an instant's time the tension burst into a seething, chaotic turmoil of blue-green flame, electric fire akin to lightning, yet far surpassing any lightning of Earth in its fury!

In a great beating sea of horrid flame it lashed the oval valley, driving into the soil, into the very rock, waking them into an angry answer of leaping, burning crimson fires. The fires swept the thin black soil from the underlying rock and scored the naked face of the rock itself with an awful furnace of consuming fury. Filling all the bowl of the valley and beating high against ifs bounding walls, licking away their flowery curtain of lacing vines, rending from them huge flakes of rock that burst like monster bombs as they toppled into the fiery sea below, it rushed in a mighty pillar of roading fires hundreds of feet into the shuddering air.

And through the currain where fire of heavens and fire of Earth met in that terrible holocaust, those three saw the curving flames of the twin spheres gape wide, saw huge angular shapes file from the darkness withinshapes never yet associated in the Mind of Man with the meaning of life! Careless of the flame that seethed about them, they glided out over the fusing rock of the valley floor, score on score of them, showing in the fierce glare as mighty, eight-foot tetrahedra of dark, glistening crystal. They were of a purple that seemed to be of the sesence of the things themselves, rather than a pigmentation of their surface; and near one apex each had two green-yellow unstaring, unseeing eyes!

Within them one glimpsed a spherical body—purple too—from which ran hundreds of curious filaments to the smooth surfaces. Tetrahedra they were—living tetrahedra of chilling terror that feared neither flame nor lightning and spread destruction on every side!

Sick at heart the three men watched, while the flames died and the winds came and stripped the blanket of dust and ash from the blasted rock. The tetrahedra mean-while glided about their endless affairs, forming and reforming in geometric pattern. Or they clicked swiftly into many-faceted forms that in turn mounted into monolithic, crystalline monstrosities, then melted with startling suddemness into their original components. These were idle, pointless maneuverings from the human viewpoint, yet fraught with some hidden meaning and purpose as alien to Earth as the things themselves. They suggested the terrible energies that were under their control—energies such as our little science has never hinted at.

"I cannot tell you of the feeling that came to me," the weary, dried-out voice of the Professor droned despairingly on. "Here was a power absolutely at odds to all the great, painfully evolved civilization of mankind, a power that could and would crush us as a fly, if we came into conflict with the motives of the tetrahedral race! Here were beings endowed by nature with powers beyond our science-alien to our ideas of evolution, well-nigh to our imagination and reason. I felt the latent doom of mankind and of the very life-forms of all Earth, squatting here in our little, blasted valley with an ominous, cruel indifference that struck chill fear into my heart! And I knew that if Man must die, I would die too-die fighting for my race and my civilization! I think we all felt it, knew it in our hearts, and swore our oath of undying feud upon the violated rock of our valley home!"

His voice trailed off into silence as his deadened eyes saw once more the vision of that awful day. I thought he had done, but again his voice broke the quiet.

"Perhaps we can flee, even now-hide away in some

corner where they can have no motive for searching exist for a few dreadful months or years while our planet sinks under their unearthly tyramy. Perhaps, for a litle, we can save our lives, and yet—I wonder if it is not better to die foolishly, futulely, but to die with the knowledge that we have been closer than any man to the unfathomable, to the reality that underlies all life."

From the dark beyond the glowing embers came

Marston's quiet rumble:

"We can't do less, Prof, and we won't. We will fight, as men fight, and if our way is greater and better than their way, you know, down in your heart, that we will win as Man has always wom—and that science will have another doubtful bone to quarrel over. In the morning we must lay our plans. They are getting restless—they may strike any minute, and we must be ready and waiting. We're going to die, I guess, but we'll die as men should!" That was all.

THE events of the past few hours had crowded in upon me with such staggering force and complexity that I found my mind in a whirl. I could get no clear-cut impression—no broad meaning—only a blurred, fantastic cyclorama of unearthly event and taut emotion, piling thought on thought in an orgy of color and sound and feeling that completely swamped me. Even now, with it all past and much of it clarified by time, I feel that same vagueness, that groping for concepts, that I felt them. With the morning all this changed—changed swiftly and utterly as event after event rushed upon us, broke like a tidal wave upon our outraged consciousness, and vanished before the tumultuous onslaught of another, greater clash of mind and matter.

We were up with the dawn, and after a scant breaklast of dried fruits, salvaged from the tents before the destruction of the valley, Valdez and I set out to find the plane. I wanted to return to the valley to get my bearings, but Valdez protested—claimed it was uselessly dangerous, that he could make better time from where we were. We struck into the tangle of dank underwood, Valdez leading, and within seconds of our leaving camp I was utterly lost. My companion seemed sure of his way, slipping through the maze of fine growth like a beast of the jungle, almost as if he were following an invisible trail.

For nearly an hour we plunged ahead, then of a sudden came a gap in the forest roof as the level of the ground fell in a narrow ravine, and I woke to angry realization of what was happening! The sun, on our right when we started, lay behind us! We were trovelling dead avery from the valley, the came, and the plane!

Angrily I sprang forward, seized Valdez by the shoulder! He spun like a striking snake, fury in his halfclosed eyes, fury and crazed fear! In his hand was a gun!

"So—you have awakened at last, Senor Hawkins," he seered. "You feel that things are not quite as they seemed—is it not so? You fool—did you for one moment think I would cast my lot with those idiots back there? Do I seem mad, that I should offer my life for fools like them? You—you were not invited to our little party, but you came—you are here, and on my hands and you will do as I say or wish you had! Am I clear?"

"You're too damn' clear!" I shouted. "You're not fit to live, Valdez, and it's high time someone told you so to your sneaking face! So you're going to sneak off and

leave your comrades to the tender mercies of those tetrahedra—you mut to make sure of your precious hide! Why, damm you, it's you that's a bigger fool than any of us! How can you expect to get clear of this filthy jungle, with the guides gone? Where are you going to find food when your shells run out? What do you think these damn's striking savages will do to you when they catch you out here alone, running away from their new gods? You haven't the least chance in the world you're crazy, that's it! You're stark, staring mad adammed, yellow, mad dog!"

"You say unfortunate things, Senor Hawkins," he replied coldly, the ugly sneer still on his thin, red lips. "I think that I can dispense with your company. It might interest you to know that Valdez is the name of my father by adoption, Senor. My people are those whom you have so kindly classified as 'dammed stinking savages' my home is these very forests that you seem to find so unpleasant! And, Senor Hawkins, have I not said that I can always find your plane?"

"What do you mean by that?"

"I mean, Senor, that it has always been I who could find the plane, and I who did find it, not very many minutes after it crashed. You would be disappointed, Senor Hawkins, were you to see it now. The food, the guns and ammunition of which you boasted—they can never have existed save in a mind disordered by jungle fevers. Or can it be that the Indios—the 'stinking swages' that even now are all about us, there behind you in the shadows, have stolen them? It would be most interesting to know the truth of the matter, would it not?"

I stared up through the matted branches at the blandly shining sun, red hate clouding my vision! I raised both hands, fists clenched, as if to crash them down upon that evilly smiling face! But the little snub-nosed gun that bored into my belly spoke eloquent warning, and of a sudden came clear thought and cool, calculated words:

"So even in this your must lie, Valdez! It is bred in the blood, I think! I do not question that you stole the food and weapons that meant life to your comrades—it is much too characteristic an act to doubt—but, Senor Valdez, no Indian would so steal another's food. Was it, perhaps, your mother who was white?"

Blind fury glazed his little, bloodshot eyes and drew back his thin lips in an ugly snarl of rage! I saw murder staring at me from those eyes, and in the instant when he stood frozen with his hate I leaped—swung with all my weight on the great liana that was looped over the branch above me! Even as the gun spat flame, the tautening vine caught him full at the base of the skull and toppled him forward into the black mold of the forest floor, out, and out for good!

CHAPTER III The Tetrahedra's Power

TWAS his life or mine, but I had not contemplated killing him. The vine was heavy and swung loose on the limb, and it whipped taut with the force of a snapping hawser, catching him squarely at the base of his maddened brain! I twas an awful blow, every bit as heavy as the swing of a sledge hammer, and it broke his spine free from his skull as I would snap an apple from its stem! I turned him over, his features purple and contorted, and as I lifted him his head flopped forward like that of a rag dummy! With a shudder I

dropped him and turned away.

Yet part of him was white, and all of him was human, and so I scooped a shallow trench in the soft mold and buried him, first searching his body for weapons and food. In his breast pocket was a rough sketch-map, showing the valley, the camp, and a small cross where the plane had fallen. Across its penciled contours ran a fine dotted line, due north from the camp nearly to the place where the plane lay, then bearing off to the west, toward the mountains, and toward a little upland river that ran down from the snows.

There was the gulley where I stood, a dried-out streambed leading up into the lower end of the valley, and just beyond a second little cross, to the south of the trail. I knew what it meant—the food and guns from the looted plane! I could see now that the way was cunningly marked by untangled vines and diverted branches—a path of least resistance, more than a trail—and within five minutes I had uncovered Valdez' cache, under the cover of an outcropping ledge of quartz, and loaded one of the packs we had brought along.

How to return to camp with my news was another question entirely. I knew it was hopelessly futile for me to try to follow the back trail, or to run by the rude map for either plane or camp. There remained the valley—straight south along the ravine—and I felt certain that once there I could regain my lost sense of direction or wait until one of the others found me. The valley—and the tetrahedra! Driven by instinct or intuition, I shouldered one of the very light machine-guns and wrapped three belts of ammunition about my waist, under my shirt.

The going was easier along the rim of the little ravine than at its bottom, where extra moisture made the tangle thicker. Indeed, it seemed almost like the trail Valdez had followed—a path of least resistance, carved invisibly into the underbrush by unknown hands. To right and left the thicket held like a tightly woven fabric, but ahead, parallel to the gulley, the branches slipped silently apart under a slight pressure of the hand and closed us quietly behind. It was obvious that either Valdez or the Indians had made this way to the valley, and it was not on Valdez' map.

The trial finally swung away from the stream-bed, toward the east, and suddenly emerged on a sort of peninsula jutting into the valley just above the point where the twin spheres lay. I saw the glare of sunlight through the trees, for there was a sort of clearing overlooking the parade-ground of the tetrahedra. Here were gathered the forest Indians, clustered behind the thin screen of vegetation, gazing in dumb adoration at the things below. So rapt were they that my approach went unnoticed, and I was able to retreat and bear to the west, creeping up to the edge of the valley midway between clearing and ravine.

It was nearly noon, and the fury of the blazing sun made the valley a black cauldron of flickering air-currents. They boiled up from the naked rock in vast, shimmering waves of heat that made the distant jungle and the rocky valley-floor seem to engage in a weird witches' caper with the unearthly things that basked at the valley's heart.

Now, in the full light of day, I could see that it was as Professor Hornby had said. The tetrahedra were formed from some hard, crystalline mineral, black almost to invisibility, with a faint wash of rich purple running through it. As they moved, the sun sent up glittering, flashes of brilliance from their polished flanks, dancing like little searchlight rays along the shadowed face of the forest. For the tetrahedra were restless, were weaving aimlessly in and out among the boulders in weird arabesques as of some unearthly dance of the crystal folk, were condensing in little groups of half a dozen or less that formed and broke again even as do restless humans, waiting impatiently for some anticipated event.

Apart from the rest, motionless in a sort of circular clearing among the rocks, squatted the giant leader of the tetrahedra. In him the deep violet of the crystal became a rich, plum-like hue, purple flushed with warm red, and the underlying black seemed less harsh. It was warmer and more like the calm velvet of the tropic night. But these are impressions, qualitative terms with which to distinguish him in some way other than by mere size from his fellows. To an observer, the distinction was apparent, but it is not easy to express in everyday terms. It must suffice that he was indefinably different from the others, that he seemed to have character and personality, where the rest were but pyramidal crystals, albeit terribly alive.

And now the giant leader was dinning out his mighty call in long, slow billows of beating sound that seemed to thrust me back, press me into the dark of the forest, away from the alien monsters of the valley! In response came thirty of the lesser tetrahedra, chosen seemingly at random from the scattered ranks, to range themselves at equal intervals about their master, forming a single great circle a dozen yards in diameter.

Again the throbbing call shattered against the cliffs about me, and now all the hordes of the tetrahedra broke into flowing motion, converging in a torrent of glittering purple crystal upon the natural amphitheater, clustering in threes at the spots that their fellows had marked—all but ten, who glided into place before every third group, forming a giant toothed wheel with hub and rim and spokes of living, sentient crystal—crystal with a purpose!

There under that blazing sun they lay, gleaming like giant purple gems against the jetty rock. I thought of the great stone wheel of Stonehenge, and of the other monolithic circles that men have found in England and on the Continent. Strange resemblance, between the pattern of living monsters of another world and the ancient temples of a prehistoric race! And yet, is it too farfetched to suggest that the superstitious savages should pattern their greatest temples after the unearthly gods of their worship-gods of purple crystal that came and smote and vanished again into the skies, leaving the memory of their inevitable circling, and the thunder of their language in the great drums of worship? May it not be that they have come before, and found Earth unfitted for their usage, and passed on to other worlds? And if they have so come, and found us wanting, what lies beyond that has prevented them from bearing back the tale of their findings, marking Earth as useless for their tetrahedral purposes? Why have they had to come again and again?

I COULD see that the groups of three that formed the toothed rim of the giant crystal wheel were tipping inward, bringing their peaks together in a narrow focus, and more, that the ten that were the spokes, the binding

members of the wheel, were of the same rich hue as their *master. The shadows of the myriad tetrahedra squatted short and black about their shining bases, against the shining rock.

As the sun soared higher, pouring its blazing rays straight down upon the sweltering world. I sensed the beginning of a vague roseate glow at the foci of the circling trios, a glow as of energy, light, focussed by the tetrahedra themselves, vet not of themselves, but sucked from the flood of light that poured upon them from above. For the light that was reflected from their sides gleamed ever bluer, ever colder, as they drank in the warm red rays and spewed them forth again into the seething globes of leashed energy that were forming just beyond their pointing tips!

The rose-glow had deepened to angry vermillion, seemingly caged within the spheres defined by the tips of the tilted tetrahedra. Thirty glowing coals against the black, ninety great angular forms gleaming ghastly blue in the pillaged sunlight, forms that were slowly closing in upon the center, upon their mighty master, bearing him food,

energy of the sun for his feasting!

Now the scarlet flame of the prisoned light was mounting swiftly in an awful pinnacle of outrageous colorpure fire torn from the warm rays of the sun-raw energy for the glutting of these tetrahedral demons of another world! It seemed to me that it must needs burst its bounding spheres and fuse all that crystal horde with its unleashed fury of living flame, must win free of the unimaginable forces that held it there between the eager, glittering facets, must burst its unnatural bonds and sweep the valley with a tempest of awful fire that would consign the furnace of the tetrahedra to pitiful insignificance! It did none of these, for the power that had reft it from the golden sunbeams could mould it to the use and will of the tetrahedra, as clay before the potter!

Slowly the great ring contracted, slowly the tetrahedra tipped toward their common center, bearing at their foci the globes of angry flame. Now they stopped. hung for a long moment in preparation. Then in an instant they loosed the cradled energy of the spheres in one mighty blaze of blinding crimson that swept out in a single huge sheet of flame, blanketing all the giant wheel with its glory, then rushing into the blazing vortex of its center. Here, all the freed energy of the flame was flowing into the body of the mighty ruler of the tetrahedra, bathing him in a fury of crimson light that sank into his glowing facets as water into parched sand of the desert, bringing a fresh, new glow of renewed life to his giant frame!

And now, as in recoil, there spouted from his towering peak a fine, thin fountain of pale blue fire, soundless, like the blaze of man-made lightning between two mightily energized electrodes-the blue of electric fire-the seepage of the giant's feast! Like slaves snatching at the crumbs from their master's board, the ten lesser tetrahedra crowded close. As their fierce hunger voiced itself in awful, yearning force, the fountain of blue flame split into ten thin tongues, barely visible against the black rock, that bent down into the pinnacles of the ten and poured through them into the crowding rim of the giant wheel, a rim where again the spheres of crimson fire were mounting to their climactic burst!

Again the crimson orbs shattered and swept over the

horde in a titanic canopy of flame, and again the giant master drank in its fiery glory! Now the fountain of seepage had become a mighty geyser of sparkling sapphire light that hurtled a hundred feet into the shimmering atmosphere, and, bent by the fierce hungering of the lesser creatures, curved in a glorious parabola above the crystal wheel, down over them and into them, renewing their substance and their life!

For as I watched, each tetrahedron began to swell, visibly, creeping in horrid slow growth to a magnitude very little less than that of their giant leader. And as they mounted in size, the torrent of blue fire paled and died, leaving them glutted and expectant of the final

stage!

It came, with startling suddenness! In an instant each of the hundred clustering monsters budded, burst, shattered into four of half its size that cleaved from each corner of the parent tetrahedron. They left an octohedral shape of transparent crystal, colorless and fragile, whence every evidence of life had been withdrawn into the new-born things-a shell that crumpled and fell in fine, sparkling crystal dust to the valley floor. Only the giant ruler lay unchanged beneath the downward slanting rays of the sun. The hundred had become four hundred! The tetrahedra had spawned!

Four hundred of the monstrous things where a hundred had lain the moment before! Drinking in the light of the noonday sun, sucking up its energy to give them substance, these tetrahedral beings from an alien world held it in their power to smother out the slightest opposition by sheer force of ever-mounting numbers! Against a hundred, or four hundred, the armies and the science of mankind might have waged war with some possibility of success, but when each creature of these invulnerable hosts might become four, with the passing of each noon's sun, surely hope lay dead! Man was doomed!

On the jutting point to my left I sensed new activity. The Indians were chanting, in weird low tones, to the rhythm of a great, deep-throated drum. It was some monotonous hymn or supplication to their ancient godsgods now personified in the things below. Through the screen of shrubbery between us, I glimpsed their chieftain, taller by a head than the rest, his arms up-raised, leading the exhortation. Their voices rose, broke in an angry clamor as a dozen of their kind burst from the forest dragging the bound form of a white man-of Marston!

I must be closer. Here, separated from them by a hundred feet of space and a double screen of matted vines, I dared not fire for fear of slaying friend with foe! Headlong I dived into the tangle, shoving the machine-gun ahead of me! Had they not been utterly engrossed in their savage ritual, the Indians must surely have heard my blundering approach, ripping blindly through the undergrowth with caution flung to the winds! By chance or fortune the tangle was less matted than elsewhere, and I burst into the cleared space barely in the nick of time.

F OR ALL of his traitorous hypocrisy, Valdez had spoken truly of old customs and old sacrifices! Marston's huge, straining frame was bent back over a rounded slab of polished rock in the center of the clearing, the dwarfed forest-men fairly swarming over him to hold him in place! Arms raised in supplication, their chieftain stood over him, his features distorted by something more than fear of his gods, and frenzy of sacrifice! Hate and terrible rage had seized upon his bronzed visage, making of it a veritable devil-mask! And in his clenched fist he grasped a glittering knife of steel, a knife that half an hour ago I had seen buried in the black soil of the forest floor-Valdez' knife!

Again he was raising his chant of dedication and sacrifice, screeched to the thunderous rhythm of the drum in the manner of those Old Ones before the Incas! Again it mounted to its climactic crescendo of frenzied adoration and black hate-rose to a maddened scream. and broke as his arm swept down against that bearded throat! With a merry cackle of savage laughter, my gun woke the echoes, sweeping leaden death across the clearing, mowing its swath of lives in sacrifice more terrible than any savage mind could plan!

Through a bloody haze I saw the brown, broken bodies twisted and flung bodily from their feet by thudding missiles that tore their unresisting flesh from their broken bones and bathed the altar and the gaunt form stretched over it with spouting, smoking blood! Blood lust was in me as I raked their bewildered ranks with the laughing death, then the belt of cartridges was gone, and as I fumbled for a second the few cowering survivors fled screaming into the sheltering jungle!

Sanity came, and horror at the slaughter I had done, and with them an awful fear that in my unreasoning rage I had murdered friend as well as foe! Stumbling over the torn and bleeding windrows of slain humanity, I raced across the bloody clearing to where he lay, the gun forgotten! And as I reached the rude altar where he lay, Marston heaved his blood-soaked frame free of the bodies that covered it, sat up, and growled whimsically:

"Are you guite sure you've killed enough for the day? Or didn't you know it was loaded?"

"Marston, man!" I shouted frantically, "Are you all

right? Did I hit you?"

"Oh, not at all, I'm quite all right. You're a rotten shot if I do say it-bring in a blasted flail, and then you can't hit me! Though I'll not say you didn't try hard enough. You did well by the innocent bystanders, and of course the public must come first in the mind of every good citizen."

As a matter of fact, I had nicked a chunk out of his arm-a nice, clean hit-and the blood on him was not all Indian. Still, his sarcastic joshing served its purpose and brought me out of my near-hysteria, where I was doing nobody the slightest good, into a sort of sanity in which I could at least talk without dithering like a crazy fool. Not until we were well clear of the shambles around the altar did he speak of Valdez.

"What happened?" he asked, "Did Valdez bolt?" "He tried to," I replied glumly, "He had the stuff from the plane cached on the trail out, and-well, I wouldn't listen to reason, he pulled a gun, and we had

it out. I broke his neck-killed him.

"I'm not blaming you for it. I saw it coming, and I reckon it was you or he. But it's stirred up merry hell among the Indians. Did you know he was a breed? He claimed to be pure Indian, son of a jungle chieftain and a princess of some remnants of the Old People, but he was a breed, and crossed the wrong way! The least hint that anyone had guessed the truth made a beast of him.

I've seen him deliberately bash a man's head to jelly because the fellow, a Portuguese muleteer, claimed relationship-on his mother's side! He was one of their priests. a heritage from his father, and I guess they found his body. Hornby doesn't know, though, and if I were you I'd lay the blame to the Indians-the dead ones, Right?"

"I suppose so, It happened as you guessed, I slugged him in the neck with a heavy liana, too hard. But how

did they get you?"

"I told you I was suspicious of Valdez. I tried to follow you, and they jumped me, south of here, near the ravine. It must have been shortly after they found Valdez, for they were all crazy mad. I think the Doc is safe, though. Do you realize that this spawning means that they're ready to go ahead and burn their way right through everything-make this whole planet a safer and better place for tetrahedra? Doc has figured they're from Mercury-overcrowded, probably, by this wholesale system of reproduction in job-lots, and hunting for new stamping-grounds. I don't know what our chances are of bucking them-about a quarter of what they were an hour ago-but they're mighty slim, armed as we are. You've got the other machine-gun?"

"It's at the cache, with most of the food, if the Indians didn't find it when they found Valdez. I have a

map here, that he was using."

"Good. Let's have it. You keep an eye on the Professor tomorrow, now that the Indians are out for blood, and I'll get the stuff back to camp. Now I know they're hostile, I'll keep my weather eye open for trouble and I'll guarantee I won't be caught napping again. Come on-let's hunt him up now, while they're still scared."

"Wait, Marston," I replied, "You get the stuff now, I have a hunch we'll need it, and that soon. I can find Professor Hornby well enough, and I don't think the Indians will want any more for some time to come."

Right you are!" he exclaimed, "So long then," And he swung off along my back-track.

CHAPTER IV At Bay!

HAD no trouble in finding the Professor, In truth, he found me. He was all but boiling over with excitement, for he had seen something we had not. "Hawkins," he exclaimed, grabbing my shoulder fiercely, "did you see them spawn? It is remarkable-absolutely unequalled! The speed of it all-and, Hawkins, they do not have to grow before cleaving. I saw two that divided and redivided into three-inch tetrahedraover a thousand of them! Think of it-Hawkins, they can overrun our little planet in a few days, once they start! We're done for!"

"I guess you're right, Professor," I replied. "But tell

me-have you seen anything of the Indians?"

"The Indians? Yes-there seems to be something wrong with them now, Hawkins. They seem to have lost their reverence for the tetrahedra. These tribes do not paint much, but those I have seen were decorated for battle, and one old man was cursing the things from the edge of the forest, working himself up into a regular frenzy of invective. They may resist, now, if the tetrahedra try to start anything,'

"Marston will be glad to hear that! Right now, I think we had better strike for the high ground across the ravine, where their flame is less likely to reach us. I'll leave you there and then look for Marston and the guns. We're going to need them before long."

"Very well, Hawkins. Your plan sounds good, and I'm glad you found the plane. But where is Valdez? Isn't he with Marston?"

"No. He's dead."

"Dead! You mean-the Indians?"

"Um. They nearly got Marston too, but I had one of the guns. Come on, we'll pick it up, and my pack of food, and find a place where we can see what happens

and still be fairly safe. Follow me."

We found an ideal fortress, high on the west side of the ravine, where a little sput ran down from the highlands to the valley of the tetrahedra. Indeed, it had been used as a lookout by the ancient inhabitants of the region, ages ago, when great eities of cut stone lay in the valleys now choked by vegetation. Enough of the ancient walls remained to provide a decent bulwark against attack, and I left Professor Hornby with the gun to hold the fort until I could find Marston.

I had little difficulty in locating him, and between us we transferred the supplies from cache to lookout, while the Professor kept a perfunctory guard over them. As a matter of fact, he was more interested in digging around in the ancient floor of potsherds and tools of the former inhabitants. He explained that the ancient Pleistocene wave of immigration from Asia, via Alaska and North America, had split at Panama to pass down both sides of the Andes. On the west, along the coast, arose the ancient American civilizations, culminating in the Incas. On the east were the forest Indians, poor savage creatures of the thick jungles, such as we had seen. And here, on the boundary between these two regions, he sought a link between the two. Perhaps he had found it. We were never to know.

It was two days before the hostilities began. Meanwhile we had found the wreck of the plane, very nearly intact but quite useless in this dense jungle. We drained the tanks of what gasoline they contained, storing in it great glazed jars of painted earthenware that Professor Hornby had found intact in a niche below our present floor-level. His idea was to fight fire with fire, incidentally clearing a space about the spur on which our little fort was perched, so that we could see what we

were about in case of trouble.

Marston and I cleared out the brush as best we could, and cut deep slots in the larger trees on the down-hill side. A back-fire is ticklish work in the forest, but we worked it, piling the quickly drying underbrush at the far side of our little swark saturating it with gasoline, then digging in to one of the Professor's excavations while the fireworks went off. In a drier climate we would not have lived to tell the tale. As it was, we more or less leveled the thick forest for about two hundred feet on all sides, before the fire petered out, leaving a tangled mess of blackened wreckage that effectively kept us in and others out, as well as clearing the field of yiew.

Our fire may have served to set off the onslaught of the tetrahedra. Certainly, with the next morning, there was renewed activity in their rocky pocket. They cleared out a sizeable ring of forest before sun-set. The next noon they had another sunfeast, and now the blackened valley was fairly teening with their angular forms, large and small, for many seemed to have split without growing, as the Professor had seen one do before.

Now, their army of destruction assembled, the tetrahedra began their conquest of Earth! In vast waves of horrid destruction with rays of angry yellow flame darting from apexes their flaming floods of energy swept over the jungle, and now not even its damp dark could resist. Mighty forest-giants toppled headlong, by the cleaving yellow flame, to melt into powdery ash before they touched the ground. Giant lianas writhed like tortured serpents as their juices were vaporized by the awful heat, then dropped away in death to lie in long grey coils along the stripped rock of the forest floor rock that was fast taking on the glassy glare of the little valley, rock fused by heat such as Earth had never known.

By evening, our spur of rock was a lone peninsula. an oasis in a desert of harsh black, a height which the tetrahedra, for some unknown reason, had not attempted.

Now we could watch their plan of campaign, and our hearts sank in fear for our race, for while half of the tetrahedral army engaged in its holocaust of destruction, the remaining half fed and spawned in the full blaze of the sun. With every day dozen of square miles were added to their hellish domain and thousands of tetrahedra to their unnatural army. For now we could see that more and more of them were taking the second course, were splitting into hosts of tiny, three-inch creatures which, within a few days' tine, had swelled to full size and on the following day could spawn anew! It was dreadful, but now we were hopelessly isolated—an island in a sea of black rock, untouched as yet by the blasting fires, but utterly unable to save ourselves or our world.

ASIDE from the vegetation which they were so methodically blasting, the Mercutian tetrahedram-for such Professor Hornby swore they were and such we later found them to be—had not yet come into real contact with the life of our planet, much less its master, Man. The worship of the Indians had been carried on from afar, and we ourselves were careful not to tempt our visitors from space. Now all that was changed in something of a double-barreled fashion. It began with the Indians. It ended with us.

Now that we were shut off from the jungle, we no longer sensed the unease and stealthy activity of the forest people. Their gods had betrayed them—perhaps they thought them devils now—their sacrifice had been interrupted and their chief men slaughtered unmercifully by the slayers of their half-white brother. Their whole life and legend had gone wrong. The tetrahedra were to blame, and the tetrahedra must pay!

The invaders did not start their daily program of devastation until the sun was high. Of late, the people of the forest had become creatures of the night, and so it was that Marston roused us about midnight to watch the fun, as he put it. As a matter of fact, we all realized that what the Indians did would probably be of vital importance to our own situation.

The spheres were too small to hold all the tetrahedral hosts, now, and they lay crowded in great confocal ovals about them, sleeping, if such things can be said to sleep. The first indication of the attack was a tiny fire of leaves and twigs on the rocks above the ravine, now choked with slabs of rock scaled from its walls by the terrific

heat. It was barely visible—merely a smudge in size, kindled for some magical purpose. Then there came a low, wailing chant, rising swiftly in vehemence and bitter hatred—a curse designed to blast the unearthly invaders where they lay. Professor Hornby was fairly gasping at the enormously ancient background of legend and superstition which it revealed, when it suddenly broke in a shrill, senile yammer of sheer madness! The strain was more than the old priest could stand.

As in answer, other, greater fires sprang up all along the walls of the valley, and by their light we could see the Indians closing in from the edge of the forest—thousands of them, drawn to worship over untold leagues of jungle paths, and now racing into battle with all the mad fanaticism of an outraged religion! It was like a tidal wave of screeching humanity, pouring down over the black rock to break over the sleeping tetrahedral Yet, as the last Indian burst from shelter of the jungle, the attacking force was revealed as pitfully small, compared to the ranks of those whom they attacked. Like a great city of black, tetrahedral tents the Mercutians lay, dim-lit by the failing moon, as if unaware of the savage swarm, led by its gibbering priest, that raced upon them. But they were far from unaware!

It was I who first noticed the faint, rosy glow that hung over the silent ranks—a glow like that which had brought down my plane. I whispered to Marston, and he told me that it had not been there before—that the tetrahedra must be awake, and waitire

He was right. The red glow was spreading swiftly, out over the valley floor, and there must have been another, invisible emanation that preceded it, for I saw the old priest falter, beat with clawed fists at an unseen wall, then topple with a choking scream and lie still. Now, all round the valley, the first ranks of the savages were meeting this slowly advancing wall of unseen death -meeting it, and falling before it! In long windrows they lay, body after body piling up before the momentum of the unleashed rush of the red-skinned hordes! Stones, arrows, spears flew through the thickening red mist to clatter harmlessly upon the quiescent tetrahedra! But not as harmlessly as it seemed, for here and there among them showed a little spurt of pale blue flame as one of the smaller things was crushed by a hurtling stone! They were hard, but their skins of crystal were thin, and a well-flung stone might break them! They were not invulnerable!

The Indians sensed this, too, for they had deserted spears and darts in favor of a hail of stones, large and small, that clattered among the tetrahedra in a veritable downpour, dealing really telling destruction among those who had not attained a fair size.

The savages were yelling in triumph, now, thrilled with success, and their bind onslaught was checked, but still the invisible barrier crept on, dealing death all along their evilly grimacing front, and still the rose-red haze followed after, dissolving the crumpied bodies in fine white ash that in turn vanished in the deepening red. The yelling circle was thinning fast, yet they had not realized the futility of their attack when suddenly the tetrahedra deserted quiet defense for active combat!

The cause was evident. Five Indians on the upslope had shoved over the cliff a huge rounded boulder that bounded like a live thing among the rocks and crashed full into the side of a great eight-foot tetrahedron, splintering its flinty flank and freeing the pent-up energy in a blinding torrent of blue flame that cascaded over the nearby ledges, fusing them into a white-hot, smoking pool of molten lava that glowed evilly in the ill-lit gloom! It was the last straw! The mad attack had become a thing of real menace to the tetrahedra, and they sprang into swift retribution. From their apexes they flashed out the flaming yellow streaks of destruction.

Now at last the Indians broke and fled before the advancing hordes, but flight came too late, for the tetrahedra were aroused and they gave no quarter! Long tongues of yellow reached out, beating down like awful fails on the fleenig savages and searing them with swift agony, dropping them in their tracks, driving them down in shapeless horror against the smoking rock, where the scarlet sea swept over them and dissolved them in drifting, fusing ash! The doomed Indians seemed to float in a yellow sea and what the sea touched was gone in an instant! Before that awful barrage nothing living could stand!

Of a sudden the tragedy was borne forcibly to our own quarter, as a handful of Indians sought the refuge of our rocky spur! Like brown apes they scrambled up its precipitous side toward our fortress and burrowed through the tangled debris of our back-fire. They were men like ourselves, men in awful danger of their lives, and Marston and Hornby sprang to the parapet, shouting at them in their native tongue. But the frightened savage knows no friend, and their reply was a volley of long arrows that toppled the Professor into my arms and sent Marston cursing for the guns! Lips set grimly, he sprayed the rocky slope with whining leaden death, mowing down the frenzied savages as I had done in the place of sacrifice! At sight of us, their madness burst forth anew and they broke their flight to rush our pinnacle, voices raised in wild vituperation!

LAYING Professor Hornby under the shelter of the wall, I dragged out the other gun and kicked open a case of ammunition, joining Marston in the defense of the fort. That other time I had had surprise and superstition to aid me in my single-handed victory, but now we two were leagued against outraged fanaticism, and the odds were great. Like locusts they came on, from every side, eyes red with blood-lust, teeth bared in hate-beasts of the jungle, ravening for the kill! It was the debris of our back-fire, piled in a matted belt around the spur, that saved us, for here the mad charge must halt and here our guns took their toll. Nor were we two alone, for now I heard the crack of a rifle and knew that Professor Hornby was covering the ledge of rock that ran back at our rear to join us to the hills.

Even so, I think our defense must have failed but for the tetrahedra. They had not been slow to recognize the changed nature of the Indians' flight, and they turned that realization to their own advantage, curving around the spur to cut off a second retreat, then laying down their fiery yellow barrage upon the rear of the clamoring swage host, licking them up as a bear licks ants. It was a matter of minutes before the last Indian lay in grey ash on the rocky slope of the crag.

For a moment matters were at a deadlock. We paused and took stock—three men with their guns against thousands of tetrahedra, armed with lightnings. Hornby had slumped back against the low wall, his eyes closed. what that civilization could do.

his spare frame racked with coughs that brought back blood to his twisted lips. An arrow had pierced his lungs. Marston dropped the machine-gun, now smoking-hot, and grabbed up a rifle. I followed suit. So for perhaps two minutes the rival forces held silent,

The Mercutians took the initiative. Their yellow tongues of flame crept slowly up the hillside, scouring it clean—up, up toward our little refuge on the peak. Now they began to glide forward, on every side, beginning the ascent. In answer our rifles rang out, and now there was no doubt as to their vulnerability, for wherever the steel-jacketed lead hit, there the thin crystal splintered and the night was lit by the glare of freed energy, the life-blood of the tetrahedra! We could not save ourselves, but we would do no puny damage!

Now came a dull thunder from the rear, and by the dim light of the red mist I could see the giant leader of the Mercutians, standing at the summit of the cliff above the valley, commanding the attack. In reply, the yellow barrage began to beat upward along the rock, toward us, and with the same signal a faint, blurred scheme leapt into my fuddled brain! I raised my rifie, firednot at the advancing front but farther back, into the body of the horde, slowly driving my fire heakt toward the giant commander, picking off monster after angular monster, nearer and nearer to where he soutated!

Then he was flinching, gliding back before the sea of flame that burst around him as his crystal warriors fell, and in reply I brought down one after another of those toward whom he was retreating, hemming him in with death, threatening—but not striking! I cannot tell why we did not destroy him, for Marston had followed suit, neglecting the threat of the flame, which waned and died as the tetrahedra woke to the meaning of our fire. Somehow we felt that it was wiser to spare him, and our intuition was good. For a moment he hesitated, then thundered his drumming command, and the ranks of the tetrahedra drew slowly back, leaving us in peace and safety.

So we remained, virtually prisoners, for eight days. On the third, Professor Hornby died—a blessing, for he suffered greatly. He was the only one who really understood these tetrahedra, and we shall never know how he deduced that they were from Mercury, a fact which Marston later proved. The archaeological data collected by the expedition are lost, too, since both he and Valdez are dead and we could bring out no specimens. The tetrahedra left us alone, barring us from flight with their haze of red energy, which extended up the slope to a level above that of the saddle connecting us with the forested mountain-slopes. Meanwhile they continued their barrage of the jungle, laying it waste on every side, mile after mile, day after day.

Through the binoculars we had watched them slowly advance, and noted their very human surprise as they burned the covering jungle from the great ruined city which the expedition had sought. It was their first real experience with the works of Man, and it caused a great commotion among them. Led by the purple giant, they swarmed over and through its ruined labyrinth, studying its every niche and angle, learning it. Here was their proof that Earth harbored a civilization—that they might expect real opposition. I do not think they ever realized that our puny defense was a fair example of

Later in the same day they found the wreck of the plane, and this time construction indeed reigned. Here was a machine of some sort, evidently the product of that civilization that they feared. Moreover, it was recent where the city was ancient. Could it mean that they were watched—that the unseen creatures of this unknown ruling race were lurking in the dark of the jungle, with their engines of war and destruction—waiting? Now, as never before in their descent on Earth, the tetrahedra were faced by the stark blankness of the utterly unknown, and I think that they began to be afraid.

The little valley was still the center of their activity, and every day we watched their spawning as the sur rode high, saw the piling up of the hordes that would overwhelm our race and planet, and make of it a dead, black thing like that little pocket on the east slope of the Andes. There was always a double ring of the tetrahedra about us now, and their crimson sea of energy beat high about our prison. The giant who led them came often to observe us, to sit and stare with invisible eyes at our fortress and ourselves. Their drumming speech had grown familiar, too, and I felt that it would not be hard to understand, given the key to its meaning.

Marston seemed fascinated with the things and their ways. There was a spring, just above the limit of the red haze, where we got our water, and he would sit there by the hour, as close to the things as he could get, watching and listening. I could see him sway to the rhythm of their thunderous speech, see his lips move in low response, and I wondered if he were going mad.

Ever since Marston had first mentioned Professor Hornby's theory that the things were Mercutians, I had been trying to find some way of verifying it. Now that we were in semi-intimate terms with the tetrahedra, I wondered if I might not get them, somehow, to supply this evidence. I thought of stories I had read of interplanetary communication—of telepathy, of word-association, of sign-language. They had all seemed far-fetched to me, impossible of attainment, but I resolved to try my hand at the last.

There was some rather soft rock in the structure of the watch-tower, and as Valdez had rescued my tool kit from the plane, I had a hammer and chisel. With these, and a faulty memory, I set out to make a rough scale diagram of the inner planets, leaning a bit on the Professor's theory. I cut circular grooves for the orbits of the four minor planets-Mercury, Venus, Earth, Mars-and dug a deep central pit. In this I set a large nugget of gold, found in the ruins of the fortress, for the Sun, and in the grooves a tiny black pebble for Mercury, a large white one for Venus, and a jade bead from the ruins for Earth. Earth had a very small white moon, in its own deep-cut spiral orbit. Mars was a small chunk of rusty iron with two grains of sand for moons. I had a fair-sized scale, and there was no room for more.

Now I was prepared to attempt communication with the tetrahedra, but I wanted more than one diagram to work with. Consequently I attempted a map of Earth, with hollowed oceans and low mountain-ridges. All this took plenty of time and trouble, but Marston was not at all in evidence, and I was not sorry, for my scheme seemed rather pointless, and I did not relish his ridicule.

CHAPTER V

Face to Face

Of things stood when the tropical storm broke over us. Its cause is not hard to explain. Remember, when those scathing fires blasted the jungle, all the superabundant moisture of the region was vaporized. Even our little spring, as it ran down into the crimson haze, vanished in plumes of steam as it passed the scarce visible boundary between life and death. To add to this, during all the long summer, the sun had been literally boiling the moisture out of the rain-forests all over the Amazon Basin. The air was nearly saturated with water-vapor, though the rainy season was normally a month off. The electrical disturbances set up by the continual barrage of fire added to the general effect. Things were rine for a storm, and it came!

A cloud-burst, it would be called in the United States. The heavens opened in the night, and water fell in torrents, streaming from every angle of the rock, standing in pools wherever a hollow offered itself, drenching us and the world through and through. Day came, but there was no sun for the tetrahedra to feed on. Nor were they thinking of feeding, for very definite peril threatened them. To the tetrahedra, water was death

As I have said, their fires had flaked huge slabs of rock from the walls of the ravine leading from the high-walled valley where they slept, choking its narrow throat with shattered stone. And now that the mountain slopes, shorn of soil and vegetation, were pouring water into its bed, the stream that had carved that ravine found its course dammed—rose against it, poured over it, but not until the valley had become a lake, a lake where only the two pearly spheres floated against the rocky wall, the thousands of tetrahedra gone forever—dissolved!

Water was death to them—dissolution! Only in the shelter of the spheres was there safety, and they were long since crowded. The hordes of the tetrahedral monsters perished miserably in the night, before they could summon the forces that might have spun them a fiery canopy of arching lightnings that would drive the water back in vapor and keep them safely dry beneath. A hundred had come in the twin spheres. A hundred thousand had been born. A bare hundred remained. Our way of escane was clear!

But escape had been possible before, and we stayed then as now. Flight was delay—nothing more. A miracle might save us, and I think we believed in miracles. So we vainly sought shelter from the deluge in the ruins of the tower, and stared through the falling rain at the two spheres, now clear of the water and perched on the ravine's edge, above the dam.

Our "local shower" lasted for three days. Then came the sun, and the mountains began to drain. Only the mew-born lake remained to remind us of the rains, a lake stained deep violet with the slowly dissolving bodies of the crystal tetrahedra. Those in the two spheres waited for a day, then came forth to survey the ruins of their campaign—the giant leader and a scant hundred of his richly purple subordinates. And now, too, came proof of the method in Marston's madness.

The tetrahedra had resumed their guard about the base of our crag, although the crimson barrage did not beat so high nor so vividly. Their master squatted out-

side the ring, brooding, watching us—perhaps pondering our connection with the tempest that had wrecked his hopes. And now Marston took under his arm the great Indian drum that I had brought away from the place of sacrifice, a drum of ancient ritual, headed with well-tanned human skin, and stalked down the slope to confront the tetrahedra. I stuck by the guns and waited.

I can see them yet, giant leaders of two utterly different races, born on two planets sixty millions of miles apart at their nearest, inherently opposite and inherently enemies, squatting there on the black rock, watching each other! A rumble of speech from the great leader and the rose-hue of the barrage deepened, climbed higher about the crag. A bluff, it was. Marston did not move.

And then he took up the great drum. He had cared for it as for a child during the long rain, sheltering it as best he could, testing the tautness of its grisly membrane, drying it carefully with sun and fire during all the previous day. Now I learned the reason.

Slowly, softly, using the heel of his palm and his fingers in quick succession, he began to drum. This was not the rhythmic throb of native dances, not the choppy voice of signal drums. Faster, ever faster the great drum of sacrifice boomed forth its message, until the beats melted into a low, continuous thunder of bottomless sound, mounting in volume to a steady, rolling roar, rising and swelling in delicate inflection. His wrist must have been wonderfully strong and flexible to so control the sound! On and on in great throbbing billows rolled the drumming, and but for its thunder all the world lay still-Marston and I on the slope of the spur, the tetrahedra about its base, the purple giant beyond, on the shore of the lake. On and on, thundering through my brain in dull, insistent beatings of dead surf on the beaches of a dead world, possessing me, filling me, speaking to me in the voice of the storm-speaking-that was it! Marston was speaking to the tetrahedra with the voice of his giant drum!

During those long, empty days on the crag-side he had been listening, learning, drilling into his scientist's brain the meaning of every voiced command that the great master of the Mercutian tetrahedra thundered to his crystal hosts, learning their inflections, storing them in his mind! He had memorized a simple vocabularysounds that signified the great commander, the horde, the tetrahedra as a class; simple verbs for coming and going, for altering the barrage; words for human beings, for their planet and our own-a host of nouns and verbs that even yet seem beyond the power of any man to glean from the muttering of an alien race, coupled with the actions that fitted the words. But Marston had learned, and with the sullen voice of the giant drum he was replying, in rough, broken, ill-chosen words, falteringly expressed, words that the tetrahedron understood!

For the crimson mist faded, vanished. The crystal ranks split, and through the lane between then glided the giant ruler, coming to where Marston sat with his drum. He stopped, spoke in words very like those that Marston had used—simple words, such as our own babies learn, roughly connected.

"What—you?"

And the drum: "We—tetrahedra—Earth." I translate rudely, as they spoke. His words were not so literal as I must make them, to suit our limited tongue—were ideas, rather than words. And yet, they got their

message across!

The giant was startled. How could we, misshapen, flabby monstrosities, be rulers of a planet, equal to themselves? He was incredulous:

"You-tetrahedra?

The drum muttered approval, as for a fulfilled command. The idea had been transferred, but the purple giant did not seem to think much of it.

"You-weak! (Easily vulnerable, like vegetation, was the sense of the term used.) You-dead-easy. (Here he used a term with which he had designated the tetrahedra shattered in the battle with the Indians.) We -tetrahedra-our planet-and Earth!"

There wasn't much answer to that one. They could rule both planets with ease. And vet-Marston called to me.

"Hawkins, bring down those stones you've been chipping, and a flask of water. Wait-bring two flasks, and a gun."

So he had seen me at work and guessed my plan. Well, his own beat it hollow, but if he had an idea, I wasn't going to hinder him. I lugged the slabs down and went back for the stoppered canteens of water and the gun. At his directions I set one flask against the rock of the hillside, above him. He took the other. And all the while his drum was murmuring reassurance to the giant and his horde.

'You work the slabs, Hawkins," he said, "while I talk. I'll translate, and you act accordingly." The drum spoke: "Sun-Sun-Sun." He pointed. "Your Sun-our

Sun."

The tetrahedron approved. He came from our own Solar System.

Now he was pointing to my diagram, to the Sun, the Earth and its orbit. "Sun. Sun. Earth. Earth." I rolled the jade bead slowly along its groove, the white moon-pebble following in its spiral course. I rolled the other planets, showed him their colors and relative sizes. Marston was drumming again, as I touched planet after planet, questioning,

"Your planet-your planet? Your planet-what?

This?"

The giant disapproved. It was not Mars.

"This?" It was anything but Venus! Venus must have been pretty wet for the completest comfort.

Eagerly-"This?" Assent! The Professor was right! They came from Mercury! But Marston wanted to be sure. He found a white speck of quartz in the black stone that was Mercury, and now he turned it to the golden Sun-held it there as Mercury revolved slowly in its orbit. There was emphatic approval. Mercury it was-the planet with one side always to the Sun. So far, so good. Marston took my other plaque-the relief map of Earth.

"Earth-Earth."

Yes, the Mercutian recognized it. He had seen it thus from space.

With a crystal of quartz, Marston gouged our particular section of South America, pointed to the ground, to the lake, the forests. "This-this," he said.

More approval. They knew where they were, all

right.

Now he reopened a closed subject. He started up the monotone of reassurance, then superimposed on it a few deft words.

"You—tetrahedra—Mercury." They sure were!
"We—tetrahedra—Earth!" Not so good! He re-

peated: "You-Mercury. We-Earth. We-tetrahedra!" There were evident signs of dissent! Marston swelled the reassurance-tone, then added a sharp call to attention, raised his gun, fired twice, threw the weapon down, and redoubled his assurance of well-meaning and safety.

His aim had been good. The flask was pierced at top and bottom, and a thin stream of water was jetting forth. trickling over the glassy rock toward us. It made a little pool at his feet, lipped over, and the double rank of tetrahedra drew back to let it pass. It formed another little pool, close to the base of their giant leader. He wasn't taking bluffs! A flash of blinding energy and the pool was steam and the rock white-hot! Marston learned another word.

"Water-dead! We-tetrahedra-Mercury Earth!"

Not so good! Marston tried another.

"You-tetrahedra-Mercury. Water-tetrahedron-Earth!"

An alarming idea that! Water the lord of Earth! "Water-no-dead!" Decided negation in the drum. He pointed. True enough, the steam was condensing and running down the smooth rock in little droplets. Water could not be killed! It always came back!

"We-tetrahedra-water!"

Phew! That was a statement! He proved it. He dabbled his fingers in the pool at his feet, took some up in his hand and slicked back his hair. I gave a thunderous grunt by way of attracting attention, uncapped the other canteen, and poured a long and very visible stream of water down my throat. Marston took the canteen and did the same, then sent me for more water, a pailful.

"Water-tetrahedron-Earth!" he reiterated. He illustrated his point, dipped water from the pail with much splashing and poured it over my relief of the Earth, filling the hollows of the seas. He emphasized it, with a gloomy note in his drumming. "Water-

tetrahedron-Earth. Water. Water!"

He had another hunch, rolled Venus around its orbit. "What?" asked the drum. He was answered, glumly. He dipped Venus in the water. Venus was pumice and floated.

"Water-tetrahedron-Venus?" Oh, decidedly, The purple giant was sure of that. Marston tried Mercury. Mercury sank. Time after time it sank, Water didn't like Mercury.

Water-no-tetrahe-"You-tetrahedra-Mercury. dron—Mercury." A pause. Then slowly, ominously—"Water—tetrahedron—you!"

And he was right. Water had them licked. I had a bright idea, and Marston moved camp to the brink of the lake, striding like a conqueror between the double file of tetrahedra. Arrived beside the water, with the giant fairly close and the army very much in the background, I stripped and dove in-"brought up bottom"brought up a chunk of half-dissolved purple crystal! Marston rubbed it in, gleefully.
"Water—tetrahedron—you?" They had to admit it.

Now he tried to coin a word—pointed to the sky and shuffled syllables on the drum. "Up—up. Water—up." The giant caught on and supplied the correct term. Marston coined a real one-a genial, murmurous

"Thank-you"-on his drum. I tried my hand again, dipped up a bucket of water and doused Marston, then stepped toward the great tetrahedron with another. He retreated. I wallowed in it myself instead-childish, but convincing. By now the idea was definitely set that water was rank poison to the tetrahedra and a second home to us. Now for the real information!

Marston drummed attention and reassurance, and the great leader glided back, carefully avoiding puddles. I could see that he floated about three inches clear of the ground. Perhaps, with the lesser gravitation of Mer-

cury, he flew.

I started demonstrating my little Solar System again, while Marston announced again that Earth was largely water-no fit place for tetrahedra-water that could be killed, but that came down again in rain. He drilled in the idea of rain, until he was sure he had made his point, securing various Mercutian expressions of disgust and dislike. He found a word for "rain"-really coined one, for it did not seem to exist in Mercutian. It was a combination of "water" and "up," so as to be quite clear, with a double-ruffle of emphasis to characterize it. The etymology of the word was quite clear to all concerned. They knew what rain was, now.

I had poked a hole through the soft, thin rock of Mercury's orbit and put clay plugs in Earth's orbit at diametrically opposite points. Now Marston demontrated. He poured water on Mercury. It vanished.

"Mercury-no-rain. No!" The entire host had crowded in, and there was a general murmur of assent. Venus, on the other hand, being a deep groove, held plenty of water. "Venus-rain. Water-tetrahedron -Venus."

They got that, too. Weather of Venus is ideal for

ducks and frogs-not for tetrahedra.

He moved out one planet, and I could feel a tensing. They knew what he was driving at! He was going to describe weather-conditions of Earth. Half Earth's orbit held water to the brim. The other half was rather damp. He slowly moved Earth around her circles, showing that six months were wet and six not so wet. He took to the drum for emphasis.

"Water-tetrahedron-Earth. We-tetrahedron-water. Water-tetrahedron-you." A delicate inference, Then, slowly, emphatically, "Water-Venus. Water-

Earth." And now his final card.

He set Mercury in its orbit, placed Venus almost opposite, paused. The giant assented. That was where the planets were at present. He skipped Earth and went to Mars, rolled it along its orbit, stopped it. Assent. All true, so far. And now I saw his point, for when he dropped Earth in place, very nearly in line between Mars and Mercury, it fell in the middle of the dry half of the orbit!

A hundred tetrahedra slid back a yard or so in recoil. This rain which had drowned out practically all of their army of thousands, was an example of our dry season! By inference, our real wet weather must have been sheer Mercutian hell to every tetrahedron of them!

But Marston was too good a diplomat to give them a hands off without suggesting an alternative. He slowly poured water on Mars. Mars apparently, and actually, had a hole in its bottom, for it drained bone dry. Mars, now, was very nice. But Earth was nasty and wet, as bad as Venus or worse. And it was inhabited by a race of super-intelligent fish, to judge from the impression he gave the tetrahedra. He picked up the

drum for a last word.

"Earth-rain. Mars-no-rain. We-Earth. You -no-Earth. You-Mars?" He dwelt on the question. "Mars? Mars???" He rolled out an endless question-mark, then suddenly quit, took a long, flashing drink of water from the flask, and dove into the lake, clothes and all. I followed him, and together we splashed to the other shore, making our mastery of the water very evident, then climbed out, waiting. If things worked out, all well and good. If they didn't-well, we had the lake between us.

And it did work! For a moment they stood motionless, the mighty sixteen-foot tetrahedron of royal purple and his eight-foot purple retinue, silent, considering, Then came a sudden command, and the hundred flowed in orderly motion to the spheres, entered. Their mighty master was alone. For an instant he hesitated, then swept forward to the very edge of the lake. From this towering peak beat the white lightnings, lashing the purple waters into great billowing clouds of steam that threw up a dense wall of mist between us! Through the hiss of the steam came his thunderous voice, in last comment upon the invasion of his tetrahedral race! Marston translated, softly:

"Water-tetrahedron-Earth. You-tetrahedronwater. We-kill-water! You-Earth, We-Mars. Mars!" And a long, rolling assent, an infinitely under-

Water and Earth seemed to be synonymous, and we were perfectly at ease in that dangerous element. For all that, they, the tetrahedra of Mercury, could "kill" it, which, by inference, we could not. They weren't going to admit defeat, by Man or water, but this was a big Solar System. We could have our soggy Earth! They were going to Mars!

Up from behind the wall of "killed" water rose two great, glorious pearls, marvelously opalescent in the rays of the setting sun-up and up, smaller and smaller, until they vanished into the deepening blue above the Andes. Ironically, it began to rain.

—READERS—

Turn to page 804 for an announcement of extraordinary interest!

The Superman of Dr. Jukes

By FRANCIS FLAGG



The guards shrank back. There was a stifled scream, and then seized in an overmastering grip, and carried forward at tremendous speed, the king of racketeers lost consciousness.

THE SUPERMAN OF DR. JUKES

By the Author of "The Lizard-Men of Buh-lo" etc.

E WAS slim and of medium height, with the phenomenon of cold grey eyes in a dark face and under a thatch of black hair. His father had been an Italian immigrant and his

mother a descendant of "dark Irish," those sons and daughters of old Erin in whose veins ran Spanish blood-the blood of the crew of the great Armada that Philip sent out in pride and pomp to subdue Elizabethan England, that Drake and Frobisher scattered, and that storms cast away on the inhospitable shores of Scotland, and on the rock coast of

the Green Isle.

Chicago had bred him, and in the Windy City he was known as "Killer Mike." He did not look the killer, but in his case looks were deceiving. As a matter of fact, he was as deadly as a rattlesnake, but he struck only in the matter of business and never for the mere love of slaughter. Young, he was, under thirty, and personable, with the smatterings of a fair education. It was only when the "Big Shot," whose bodyguard he was, tried to put him on "the spot," that he left Chicago hurriedly. The Big Shot held organized gangsterism in the hollow of his hand and to attempt, openly, to live and function

without his permission. and protection was sui-

cidal

So the Killer had fled. conscious that the long arm of his erstwhile chief was reaching out to slav. East to Boston, and from Boston by steamer to Halifax. Here he breathed easily for a moment; but one night a shot stabbed at him through the dark; so he sneaked aboard a train for Montreal, From Montreal he swung across the border to Detroit; and from Detroit zigzagged west to Arizona, losing himself in the vast armies of unemployed that rode freights. By this time his money was

gone, his sleekness, and he wore frowsy overalls and a jumper. Lolling on the grass by the Fourth Street subway in Tucson, not knowing what moment he might be bagged by a policeman, an elderly gentleman with a pronounced Jewish nose accosted him. "I suppose work is pretty hard to get these days," he remarked.

"Yes," said the Killer. He was properly suspicious of all strangers, but a cursory inspection served to show that here was no likely henchman of the Big Shot. The elderly man was well-dressed in clothes

of a good cut and quality, but carelessly, as if clothes were of little importance to him.

"It must be hell on those poor devils with wives and families to support."

"I've no one but myself," said the Killer,

"But you need employment, I presume?"

"In the worst way."

The elderly man studied him thoughtfully. "My name," he said at length, "is Jukes-Doctor Jukes. Ever hear of it?"

FRANCIS FLAGG

IT WAS Wells, in his "New Accelerator" who pointed out that our world is created by the quality of our sense perceptions. Sight, hear-ing, feeling, smell all combine to form our pic-ture of our universe. And, as Wells showed in that amusing story, if our sense perceptions were altered, our world would be altered also. This fact has been made vividly clear to us by the motion picture. When pictures are slowed up or accelerated, their meaning may change en-

tirely. It is quite possible that our own senses could be speeded up or slowed down. If we studied the animal world carefully and discovered what qualities gives the cat its swift movement and keen hearing, the dog its delicate sense of smell, the panther its grace and strength, we might be able to utilize them to make supermen of our-

And if we could do that, a series of adventure might open such as Mr. Flagg pictures in this

fast moving story.

"No." "Ah, well," said the Doctor, "it isn't quite unknown to science. I am by way of being a physicist of some reputation. My papers on . . ." he brought himself up with a jerk. "What I meant to say is that I am interested in certain experiments for which I need a human subject. Nothing dangerous, you understand; mostly a matter of routine. But still important." He stroked his chin. "I'm willing to pay a young man like yourself forty dollars a week for a few weeks' employment at the most. Food and lodging included, You would, of course, lead a secluded life under my supervision for the duration of the experiments. What do you say?"

The Killer thought swiftly. Here was an opportunity to drop from sight for some time to come, a sanctuary in which to rest up while recouping his pocketbook. The old guy was lying, of course; there must be some risk to the experiment; But not as

lead poisoning. "All right," he said briefly, "you've hired me." The Doctor smiled benevolently. "And your name is . . .

much risk as dying of

"Brown," said the Killer without the least flicker of hesitation.

"Very well, Brown,"

said the Doctor, "if you'll

follow me to my car . . ." But the Killer shook his head. It was not likely that he was being observed, yet one never knew. "Just slip me your address," he said; "I'll be around later."

Doctor Jukes' residence was out St. Mary's road, in the foothills of the Tucson Mountains. Five acres of land were enclosed by a high fence of net-wire. Four buildings stood in this enclosure. The Doctor introduced the Killer to one of them, really a wing of the main residence, but only connected to it by a roofed

passageway. This annex contained a suite of rooms which, if not luxurious (and the Killer was accustomed to a certain amount of luxury and refinement in his

surroundings), were comfortably furnished.

There was a bedroom, bath and sitting-room, and a door led to a small patio or garden, some yards in extent, which was surrounded by a six-foot concrete wall. "I believe you will find everything comfortable," said the Doctor. A manservant, middle-aged, taciturn, prepared a bath, laid out shaving gear, and provided fresh linen and a suit of white duck that fitted him fairly well. The Killer wondered from whence they came, and if he had known might not have felt so easy in his mind.

S IT was, he relaxed, and over a tastefully served A meal studied his surroundings. Bars criss-crossed the high windows, he noticed, and when the servant finally went away by the passage door and left him to a magazine and a cigarette, the door automatically locked behind him. But these trifles failed to disturb the Killer. Of course the Doctor could not be expected to give every stranger the run of his place. He congratulated himself on his luck in finding as secure a hiding place,

The next morning he was made rather ill by the injection of a solution into his arm. "You'll be all right tomorrow," said the Doctor. But every day there was a new injection, and a week past before he felt himself; then he picked up surprisingly. It was a quiet existence. He walked or read in the little patio and sunned himself. Sometimes the Doctor's assistant, a stout nervous individual of uncertain age named Doctor Burdo, walked with him, taking notes of his condition. He was an old school-mate of Doctor Jukes and devoted to his interests. All this he told the Killer in his pleasant inconsequential chatter. "Doctor Jukes is a great man," he said. "Famous, a genius."

Day by day the Killer found himself tingling more and more with the zest of living. His wits seemed to clarify. He thought of a thousand ways in which he could have disposed of the Big Shot and wondered why they had never occurred to him before. Also his sight became keener, almost microscopic in its keenness, he thought, and laughed at the conceit. But nothing escaped his eyes. The little lizards darting up the wall, and the activities of certain small bugs and insects. He spent hours watching them. His increasing ability to hear was almost uncanny; the creaking of the floor, the soughing of the wind, and a myriad of small things rubbing wings and crawling. He was not alarmed. He knew these phenomena were the results of the Doctor's injections. The assistant quizzed him about them, made interminable notes,

One day in the garden he turned on him with a swift movement, a movement almost as swift and as lithe as that of a panther. "Lord, I feel strong," said the Killer. He flexed his arms, "I feel as if I could lift you over my head like an Indian club." He caught the assistant playfully by the waist, and to his huge surprise (the assistant weighed nearly two hundred pounds) whirled him aloft like a feather. Once more on his feet, the assistant laughed shakily, "I'll say vou're strong!" But that evening he spoke at length to Doctor Jukes. The Doctor nodded. "The experiment has been a glorious success. There's no need to carry it further. Give him the quietus in the morning." The assistant hesitated. "Such a splendid fellow!

It seems a pity to . . ."

"Come, come, Charles," laughed the Doctor. "No mawkish sentimentalism. Tomorrow," he said more seriously. "I am to meet Asbury, so I must leave the

giving of the quietus to you."

The Killer was restless, his mind abnormally active. For the first time he resented being locked in at night. He gave one of the window-bars a tentative twist and it came away in his hand. With the sinuous grace of an animal he swung through the aperture and dropped to the ground beyond. It was cooler in the gardens than in his room. His hostrils quivered with delight. The night was intoxicatingly odorous, filled with murmurous sounds.

For awhile he paced back and forth; but soon it occurred to him that he had never seen beyond the confines of the walls hemming him in. On the other side was the laboratory, and the quarters of the assistant. Why not surprise Burdo with a call? He scaled the wall with ease. The laboratory door was latched but not locked. Unfortunately, however, the assistant had chosen that evening to dine out. Filled with curiosity the Killer struck a match and turned on an electric light. It dimly revealed a long room almost meticulously neat. White porcelain sinks set against the wall, and stands and shelves with orderly rows of test-tubes and bottles containing chemical compounds or cultures.

Beyond was still another room, and when he opened its door something moaned and flashed by him with a screech. There was a crash behind him. Turning, he perceived that the creature, a monstrous pink rat, had taken refuge on a shelf over a sink, upsetting a number of bottles in doing so. At his approach it leaped from the shelf and fled through the outer door into the night. None of the bottles were broken. As nearly as possible, he rearranged them in their niches on the shelf, and somewhat ashamed of his misadventure, returned to his apartment and went to bed.

The bottles were similar in size, their contents colorless as water and identifiable by the numbers over the niches in which they stood. A corresponding number was labelled on each bottle, but for the most part were

small and almost illegible.

Still drowsy from the unaccustomed lack of sleep (it had been after midnight when he turned in), and reaching automatically and with hardly a glance for a certain bottle, unwittingly the assistant filled his hypodermic with, not the lethal dose intended, but the pure, undiluted secretion, minute quantities of which the Doctor had been injecting into his patient over a series of days,-and it was this solution he shot into the Killer's arm!

CHAPTER II

The Quietus

WO men were seated in the uptown office of Joshua Jukes, famous surgeon and scientist. One was Doctor Jukes himself, slim, with well-spaced eyes and a towering balded brow. The other was no less a personage than Vincent Asbury, Secretary of War. In some circles it was more than hinted that he was

Frazzini's man. The Doctor either didn't know this or didn't care. He was a scientist, not a politician. His own motives were clear enough. He had made known his discovery to the War Department, offered his formula for sale, and as for the rest.

Vincent Asbury was speaking. He was a handsome man of fifty, with narrow, crafty eyes, and when standing carried his tall figure with noticeable distinc-

"You mean to tell me, Doctor Jukes, that this thing is possible?"

"Indeed, yes."

"But it sounds like a miracle."

"And one not to broadcast to the world. First my country . . ."

"Oh, yes, your country." Asbury carefully kept the smile from his face. "And if you can properly demonstrate your discovery, your country will reward you well. But how does it work?"

"That's rather difficult to make clear to the lay mind.

But you know the glandular theory?"

"Slightly."

"Well, it's through the injection of extracts, of course. Certain ductiess glands have a secretion lately analyzed which empties directly into the blood. This secretion is what keeps the nerves of the body normal and healthy. It has been ascertained that too little flow produces nervous depression, sciatica, rheumatism, while too much brings about that abnormal condition which is usually diagnosed as genius or insanity. Walters of England, and Grotsbach of Germany, have made important discoveries in this field. Indeed their fol-fos extract is now being used to heal certain types of mental disorders. What I have told you so far is the secret of no particular scientist or country."

"But this other?" asked Asbury anxiously.

"Is. You must know that I have devoted the last ten years of my life to the same research work engrossing Walters and Grotsbach. Curious things in relation to ductless glands early claimed my attention. Some of my findings I published in medical and scientific journals, but others I kept to myself. First, because I had not substantiated them with the proper amount of proof; second, because I did not wish to be anticipated in the thing I sought to discover.

"But, I have produced rats as large as cats, mice as later as rats, and other things which I had better not mention. Dogs grown into nightmares, rabbits that a little lack of manganese rob of the "instinct" of mother love, and even of the desire and ability to mate. But enough! You understand that I worked, that I spared nothing in my investigations. Not even," said the scientist coully, "men."

"Good God!"

"What would you? Some of them died, of course, and others went mad and had to be killed. But one must verify certain conclusions on the human; there is no other way. They were poor devils; martyrs to science, if you will. At any rate, they made possible what I have finally achieved."

Ashury made no audible retort, though he could not keep the distate out of his face; yet Doctor Jukes was right. The ethical value placed on human life is an uncertain thing. For reasons they knew nothing of, and that might not even concern them, he would send millions of soldiers to die and think little of it.

The scientist went on: "If one could handle the process which caused an increase in secretion in the ductless glands I have alluded to! Would not that open the way to speeding up every function of the himan body? That was at first a wild surmise on my part. But consider that man is a creature of his nerves. The sense perceptions, the reflex actions, even speed of thought itself, is dependent on the nervous system. The glands speed up the nerves, the nerves every sense and faculty of the human organism, including that of mind, and mind reacting back upon the nerves and glands again keys up every sense and organ of the human body.

"This was the basis on which I worked. Failure after failure but increased my determination to succeed. Finally I met with some success in the case of animals. Then it was that I used, and am still using men. No need to relate the successes and failures there. Even the successes it was necessary to kill. I see you do not like that, but consider: Could I allow my experiments to be bruited around? After years of work I was intoxicated with victory. See this bottle? Ten drops of its contents is enough to raise the normal powers of a healthy man ten times in excess of what he possesses. There is fol-fos in it, of course, and a portion of adrenalin, and . . . but that is my secret!"

THE habitual calmness of the great scientist returned to him. He placed the bottle carefully back on the desk and regarded the Secretary of War, "Well, my dear sir," he questioned.

Vincent Asbury said slowly, "I am thinking," and he was. He was visualizing a picked body of men with their physical powers raised to the zenith. What power could withstand them? His eyes narrowed.

"If you can prove this secretion . . .

"I can."

"Then listen . . ."

Doctor Jukes came from his interview with Vincent Asbury with a feeling that everything was well in the best of all possible worlds. He did not like Asbury, but money was to be his for further scientific investigations, and just in the nick of time, since his other resources had well-nigh dwindled away. Blithely he entered his home.

"Well, Charles?"

The assistant glanced at the clock. "I gave him the quietus at nine-thirty and never saw a man pass out so suddenly. I left him lying on the bed until your return."

The Doctor nodded. "I'll take a look at him before lunch."

He walked through the open passage. "A nice day," he thought, "but hot." Nothing warned him that he was making his last observation on the weather.

How strong the accelerating secretion injected mistakenly into the Killer's arm was will never be known, but it must have been tremendous. Had his system not been accustomed gradually to increased doses over a period of days, the results would have been fatal. As it was, the sudden acceleration of heart and lung action brought him to the verge of death.

Darkness struck at the base of his skull with the

suddenness of a sledgehammer and he collapsed into an inanimate heap. The assistant felt for his pulse, but the beat of it was so incredibly rapid as to register as no pulse at all. But the Killer was not dead, and during the hours he lay in a state of coma his whole bodily organization underwent a miraculous change. As suddenly as it had left him, consciousness returned and found him staring wide-eyed at the ceiling. Giddy, he was, and sick, but this soon passed, and in the moment of its passing Doctor Jukes entered the room and knelt by his side. The first thing the Doctor found remarkable was the heat radiating from the supposedly dead body and the flexibility of the wrist he took.

"What the devil!" he cried, starting up. "Here, Charles; the lad isn't dead." He stared at the wide glowing eyes. "You couldn't have given the quietus;

you must have . . .

But he never finished the sentence. Like a flickering shadow the Killer's hand shot out and took him by the throat. There was a sharp snap as the neck broke, and in the same instant the body hurtled the room to crash against the far wall. The Killer surged to his feet. He had heard the Doctor's words, understood the situation and all that it implied.

"Kill me, would he, the dirty rat!" The motion of the Doctor's body fascinated him. It seemed to loaf along at snail-like speed. In reality its transition through the air occupied not three seconds. But everything in time and space had altered for the Killer. The assistant running for the door seemed a figure shown on a screen by a slow motion-picture camera. The lifting of his feet, the bending of knees, in fact, every motion of flight, was almost painfully slow and measured. Each detail could be watched.

The Killer had seen pictures of animals running like that. Long-legged giraffes sailing gracefully over African landscapes; slender deer slowed up in their flight so that audiences in theaters might study their methods of locomotion. For a moment he was startled; then working at lightning speed his mind grasped the explanation. For weeks they had been speeding up his bodily organization, and now, now...

He moved. It was done with such swiftness that one might be forgiven for comparing it with that atom or electron which is said to shift positions without any intermediate action. In midstride he caught the assistant. One brush of the hand. It was like pushing over a mannequin that refused to fall, save as a feather topples. Then bare-headed, and clad in but trousers and a soft-collared shirt, he was out of the building, the grounds, and striding up the road.

An automobile crawled towards him, a taxi-rab, doing twenty miles an hour. Now was the test, his own
strength against that of the gleaming car. Deliberately he blocked its way. The driver screamed at the
sudden materialization of this slender, dark-faced man.
Almost wildly he bore down on the brakes, sought to
swerve, but the yawing machine was brought to an
abrupt stop that catapulted him over the wheel, that
flung the white-faced man in the rear seat forward
across his shoulders. With one negligent hand the
Killer held the taxi motionless while its engine roared
under a shaking hood, while its wheels still bit impotently at the packed dirt of the road.

CHAPTER III

"Two Men Have Been Killed"

HEN Doctor Jukes left Vincent Asbury, the latter went to his apartments in the exclusive Green Hotel and dismissed his secretary and valet. "I'll not be needing you, Robbins," he told the man-servant, "until dinner-time. You may have the afternoon off." He was in Tucson incognito and, save for one or two discreet individuals, unknown. Assured of privacy, he placed on a table a dark case that looked not unlike the container for a portable typewriter and raised the lid. The case certainly contained a machine but not of the typewriter variety.

At first glance it might have been mistaken for a radio; and indeed it was that, and something more; in fact the contrivance represented the last word in radio-television devices, the invention of a great inventor who had sold it for a price—five million dollars to be exact. The inner surface of the upraised lid was a burnished screen. Connecting the device to a light socket by means of an extension cord, Asbury threw a switch and twirled a dial.

Instantly the room was filled with a sputtering noise, 302 M-9b, he spelt carefully. The sputtering fell, rose, died away. He leaned so that his face was fully caught by the light of a bluish bulb. The burnished screen clouded, clarified, and in it grew the features of a man. "Hello," said a voice faintly, as if from an immense distance. "Hello yourself. This is Number Two speaking. Yes, Number Two. Is the Big Shot there?"

"Gure," said the faint voice. "He's been waiting for your call. Just a moment." The features faded, and in a minute was succeeded by those of a man whose face expressed ruthless power. The eyes were wide-set, with heavy lids, and even in this television picture, which gave no distinct colors save white and black, you knew that they were greenish.

The cheeks were fleshy, the lips thick but wellshaped, and one cheek was scarred as if by an old burn. The newspapers of the world had broadcast that face; it had been shown in newsreels and magazines. A nationally known face it was, as familiar as that of the President of the United States, or of a movie star; —the face of Frazzini, millionaire bootlegger, king of racketeers. It smiled genially now, showing a set of white, even teeth. "That you, Vincent?"

"Yes. I'm speaking from Tucson."

"How is everything?"

"I saw Doctor Jukes about that discovery of his he offered the government—through me." He laughed softly. "Of course he thinks he's doing business with Uncle Sam."

"And the discovery?"

"It's a wonderful thing. Listen, Frazzini, a shot of it would make our boys irresistible." He went into details. "The effect wears off in time, but while it lasts..."

"You made him an offer?"

"Of a million cash—with a hundred thousand yearly for further research work. He understands that the deal is secret—for reasons of state, ha, ha!"

Frazzini spoke incisively. "See the Doctor at once and tell him you will have a government official and two secret-service men call on him tomorrow for a

practical demonstration. I shall leave here with Landy and Cococetti almost immediately. Reserve

rooms for us at your hotel. Understand?"
"Yes. On the top floor, I suppose? Chicago is
twelve hundred miles away as the crow flies. That
means you will get in . . ."

"In twelve hours at the outside. Have everything

arranged. Good-bye."

Thoughtfully Vincent Asbury removed the connections and closed the case. Lighting a cigarette he moved over and stared unseeingly out of the window. Frazzini could make him president of the United States—and would. But nevertheless he irked under the gang chieftain's control. Given the opportunity, he would blot out Frazzini—like that. But right now he needed him, and the organization he controlled.

His mind busy with all its tortuous thoughts, he called up the desk and asked that a taxi be summoned. At the same moment he reserved the rooms. It was summer and not difficult to get the location desired. Descending, he took his seat in the taxi and giving Doctor Jukes' address samk back with closed eyes. Up Congress the car sped; then north; and then west again. Suddenly the car stopped with a jerk and he was hurled violently forward into the back of the driver. The shock nearly dislocated his neck. "What the devil!" he cried when he had recovered his breath. "What does this mean?" and then paused with mouth half open, staring into a dark expressionless face and cold grey eyes!

Every atom was rioting in Killer Mike's body. By almost imperceptible degrees the potent solution was increasing in intensity. There was no reckoning how fast the Killer's faculties were functioning. He laughed sardonically, an eerie laugh. "Ha, ha! If it isn't Number Two!" Even in that almost split second of stopping the car, and while Asbury was yet engrossed in his own thoughts, the Killer heard him thinking. Yes, heard; for to him it seemed that Vincent Asbury had been talking aloud. The Behaviorists claim that all reasoning is a matter of sub-vocalization, that literally one does talk to himself when thinking. To the ears of the Killer this sub-vocalizing process was audible as sound.

He heard the war secretary mention the Big Shot's name, the Doctor's, think of the coming of Frazzini, mouth over his own plans, ambitions,—and all in a fraction of time quite long to him. The taxi-driver, knocked limp for the moment, recovered with a curse, and took his foot from the gas. "Hey, you!" he belowed, lunging at the Killer with intent to grab him by the collar. "What do you mean by this, hey?"

THE Killer watched the lunge with impersonal interest. God, the fellow was slow! He seemed to float through space, split seconds being minutes. He brushed him away lazily, and watched him going backward in the same leisurely fashion to collapse in a heap from which he did not stir. But to the war secretary the action had taken place with almost unbelievable swiftness. He had recognized Killer Mike, as Killer Mike had recognized him, and knew that he was condemned by the Big Shot and his life forfeit.

In the very instant that the driver surged forward he drew his automatic and fired. But the Killer's eyes caught the gesture. Without trouble he avoided the bullet and threw out his fist. Struck by what he never had a chance to see, Vincent Asbury sagged back.

Again the Killer laughed, an eeric whisper of 'a laugh, and turned and was gone so swiftly that to the staring occupant of the second-hand Buick that had pulled up behind the taxi, and to the man in the office of the greenhouse bordering one side of the road, he seemed to flicker and vanish into nothing. The taxi stood with throbbing engine. "What the hell!" said the driver of the second-hand Buick, rubbing his eyes. Then he clambered from his seat and peered into the taxi. At what he saw, he gave a gasp of horror. The man from the greenhouse came running across the road.

"What's the matter?" he panted.

"Matter . . . matter . . . Can't you see what's the matter?" He pointed wildly at the bloody features of the taxi-driver, at the horribly crushed in skull of the secretary of war. "That's what's the matter! Murder! Two men have been killed!"

But the Killer did not hear. He was gone like a wraith. The world seemed to stand still as he glided along. The scent of mankind was heavy in his nostrils; but above all the individual odor of Asbury. It hung in the hot air like a thin, evil trail. It smelled, thought the Killer sardonically, like one might expect the crooked, oily mind of Asbury to look. It was not difficult to follow. In a few minutes he was at the hotel.

The clerk did not see him, nor the bellhops sitting in a braided row. The fat man coming down the stairs to get the exercise his doctor ordered, wondered what it was that brushed by and nearly sent him sprawling. He could have sworn that a voice said. 'I beg your pardon,' but no one was in sight. Much shaken in mind and body he waddled to the elevator shaft and rang the bell. Damn the doctors! It was a hot day and too much exertion made a man feel gueer.

Still following the trail, the Killer came to the correct door and opened it by the simple expedient of pushing. Yes, there was the television-radio. His face twisted into a deadly grin. Every atom and fibre of his body was dancing. Put him on the spot, would he? Why nothing could touch him now, nothing; neither men nor guns; and if he wished.

With a swift, lithe motion he opened the television case.

IN THE underworld of America they spoke of him with bated breath, his friends admiringly, fawningly, his enemies bitterly and with curses. Rumor had it that he had started his carreer in a bawdy house. When Big Tim was chief he had been his favorite guard. When Little Arne broke through Big Tim's defense, those in the know said that he had first fixed it with him. If that were the truth it hadn't kept him from driving past Little Arne's flowershop one day and riddling him with lead. He was ambitious, ruthless, and with more than a touch of organizing genius. The result was that where other gang leaders went to the graveyard or abroad, he built up a vast illegal business of forty millions a year. Over his immediate followers he ruled with an iron Voer his immediate followers he ruled with an iron

hand, the whilst he wiped out competition with bribes—or a machine gun. He was king, despot, the one and only chief of racketeers, Frazzini, the Big Shot, the most feared and powerful man in the country.

His Chicago home was a fortress. It stood on the top of a skyscraper. The approach to the roof was cunningly guarded. Frazzini knew, none better, that there were envious souls who would like to bump him off; some for the honor of doing it; and some to step into his shoes. At the particular moment we see him he has turned from speaking to Asbury on the television-radio. He is a big man with broad shoulders, forty years of age. "Get in touch with the boys at once, Jim," he directs his lieutenant, "and tell them we leave for the west within the hour. Have the planes made ready." Jim Landy nods and leaves the

He is a man of few words. Soon Frazzini hears the mechanic tuning up the engines of the specially constructed autogiros. With rotating wings of the most advanced design, they could take off in a fifteen yard run, land at twelve miles an hour, and carry twelve passengers apiece in their comfortable cabins. For a moment Frazzini hesitates and then rings a bell. To the man answering, he says tersely, "Tell my wife I wish to see her."

She came at length, a queenly creature in a trailing robe, with sleek, dark hair and a colorless face. "Well?" she questioned tonelessly.

"Nothing," he said, "only I thought you'd better know..." He broke off abruptly. "Why in the devil are you going on like this?"

"Am I going on?"

"You know what I mean."

Her eves flashed.

He said stormily: "It's me who ought to be sore. Who picked you out of a dance hall, made you what you are?"

"As if I should be grateful for that! What am I any way?"

You are my wife."

"Oh, yes, your wife. How wonderful! The vice-king's wife."

"You didn't talk like that when I asked you to marry me."

"Would to God I had!"

He paced the room for a moment. "Gloria," he said more softly, laying a hand on her shoulder, "you used to love me a little. Isn't there some of that liking left?"

She shrugged from his hand. "Don't touch me, please; your hands are dirty."

"Because I run booze?"

"You know what I mean. I don't care about that. It's the other vile traffic."

"I swear to you . . ."

"Please don't lie," she said contemptuously. "You lied to me before. I found out . . ."

HIS mouth narrowed into a thin slit. "From that traitorous rat Killer Mike! But he won't betray any more secrets."

"What have you done with him?"

"Ha, ha! So that touched you, eh? Worried about

"You know that's a falsehood."

"Yes," he almost whispered at length, "I believe it is. If I didn't . . ."

With a gust of hungry passion he swept her into his arms.

"Gloria, Gloria! Look at me, girl! You're mine, see! And you love me in spite of yourself! Yes, you do. I'm bad and vile, but you love me! I've got to go on; don't you see that? I can't stop—and Killer Mike is in my way. It wasn't only that he spoke to you—I could forgive that—but he actually plotted,' he freed her and stepped back, "plotted to split the gang and rule in my shoes." He raised a fateful hand. "Do you think he can do that and get away with it? No, I must make an example of him for the benefit of others. Killer Mike is doomed." He stopped abruptly. "What is that?"

The whire of the television-radio sounder filled the

room. He stept forward and threw the switch, standing so that the blue light irradiated his features, scanning the burnished screen set against the wall. "Hello, Frazzini speaking. Is that you, Asbury?"

A thin eerie laugh swept out of the device. "No," said a metallic voice. It seemed to come from an immense distance. "This isn't Asbury; this is . . ."

Frazzini's wife gave an audible gasp. In the burnished depths of the screen grew a face, a cold, dark face with frosty gleaming eyes.

"Killer Mike!" exclaimed Frazzini.
"Yes," said the metallic voice, "Killer Mike." Again the cerie laugh swept the room. "You'll never see Asyn and the cerie laugh swept the room. "You'll never see Asyn and the properties of the

CHAPTER IV

Into the Desert

THE sensational automobile murders, the slaying of the famous Doctor Jukes and his assistant, were headline news. Within an hour of their discovery a half dozen extras were being sold. "Mystery Murders on The St. Mary's Road," serteamed one black streamer; and others shrieked "Fiendish Murders Shrouded In Mystery; Police Baffled."

The two witnesses of the automobile murders were quoted. "The taxi suddenly stopped, just like that," said the driver of the second-hand Buick. "I had to jam on the brakes hard to keep from running into it."

"Yes," corroborated the other, "I was looking out my greenhouse windows and saw the whole thing. A man was clinging to the side of the taxi, though I don't know where he came from."

Both witnesses described the man as being of medium height, clad in white trousers and a soft white shirt. Neither saw the actual killings. One was too far away, and the other's view was interrupted by the rear of the taxi.

Doctor Jukes' servant testified that a young man answering such a description had been a patient of the Doctor's.

But the greatest sensation transpired when one of the bodies in the taxi was identified as that of Vincent Asbury. The identification was made by Robbins, the valet, and by his private secretary. "Yes," said the latter, "Mr. Asbury had been in Tucson incognito on government business." No, he didn't know what that business was, but it had to do with the department he headed and a chemical discovery of Doctor Jukes.

"Secretary of War Murdered For War Secret," captioned one paper. Excitement was running high when the chief of police received the following telegram from Chicago authorities: "Confidential information that Asbury, war secretary, killed or injured. Arrest at once Michael Fliani, alias 'Killer Mike,' notorious gunman and gangster. Description: height, 5 feet, 71/2 inches; weight, 150 pounds; complexion dark, with black hair and grev eyes. Looks like and is an Italian. Officers arriving by air. Answer,"

"Well what do you think of that!" muttered the chief of police; but he was canny enough to keep the telegram from the reporters; and in the early hours of the morning a big autogiro fell silently out of the heavens and settled on the flat roof of the Green Hotel.

From it stepped Frazzini and went at once to the suite Asbury had reserved, surrounded by a bodyguard of slim hard-faced men with hands on ready weapons. With him was a prominent member of the Chicago detective force, really a henchman of Frazzini. The latter sent word to the chief of police that he wanted to see him. It was actually a summons from the gang chieftain. The chief stared with reverent awe at the king of racketeers. Frazzini did the talking.

"This Killer Mike used to be a member of my organization, see? But he raised a ruckus and I threw him out. Why he wanted to kill Asbury is a mystery to me." (The chief had his own opinion about that; he knew of the rumors connecting the war secretary with the man who spoke.) "Now I want my men to co-operate with the authorities in hunting him down and through you offer a five thousand dollar reward for his capture. Understand?"

The chief nodded that he understood.

"There's another planeful of my men coming. Will be here in an hour or so. This Killer Mike must be captured. He . . ."

The low whisper of a laugh filled the room. "What's that?" cried Frazzini. The gunmen were on their

feet, weapons in hand.

"Ha, ha, ha!"

Frazzini whirled. Behind him, almost against the wall, stood the figure of a man in white duck trousers and a light shirt. He hadn't been there a moment before, no one had seen him enter, and yet he had walked through a corridor dominated by armed men, entered the open door of the room with a stride.

"Ha, ha, ha!" It was the Killer laughing. He saw the weapons of the gumnen go up-slowly-as if manipulated by men scarcely able to move; and when Frazzini whirled it was as if the evolution would never be finished. Lazily he sidestepped the loafing bullets; but to the astounded guinmen it appeared as if he had flickered out of existence at one point and into it again at another. The bullets buried themselves in the wall. There was a splintering of plaster, and from somewhere beyond frightened cries.

"It's no use, boys," said the Killer, "bullets can't hit

The guards shrank back with scared faces. At bottom they were a superstitious lot. Knowing nothing of Doctor Jukes' accelerating solution, the phenomenon witnessed admitted of but one explanation. The Killer was dead. They were fighting the Killer's ghost!

But Frazzini understood. The marvelous discovery of Doctor Juzes was being utilized by Killer Mike. He

was speeded up in every sense and faculty.

"So you realize the truth," hissed the Killer. "Yes, I am speeded up; I can even hear your thoughts. Compared to me, ordinary men are as snails. I can out-move, out-think, out-fight Ah, you would, would you!" His hand flicked out and the Chicago detective, of sterner metal than his fellows, went back with a crash and lay in a still heap upon the floor. "I have waited for you, Frazzini, as I said I would, to put you on the spot; but the spot isn't here. First, I'm taking you for a ride, Frazzini." He moved. Chairs went over with a crash. A gunman fired. There was a stifled scream, and then seized in an overmastering grip and carried forward at tremendous speed, the king of the racketeers lost consciousness.

THINGS were happening to the Killer. Bearing his burden he strode through the night like a wraith. First he went north until he reached the desert, and then north-west. He was Killer Mike, the Big Shot and the empire of gangsterdom was in the hollow of his hand. And not alone the empire of gangsterdom-that of America, the world. He laughed, and his wild eerie laugh echoed through the night. White-faced men and women paused to listen, "A coyote," said some, "No coyote ever howled like that," said others.

Official Tucson was in a ferment. Posses were being formed. But the Killer strode on. Not only every sense and faculty was now accelerated, not only every atom and molecule, but under his clothes the flesh was shimmering, expanding, as the atoms and molecules whirled in ever increasing orbits. The heat was unbearable.

He tore the binding clothes from his body as he walked. Where the Oracle Road turned off from the main highway he paused, and passing motorists saw the gigantic figure of a naked giant brooding under the stars. This giant carried the limp figure of another man in his arms. Stopped by policeman, the motorists related what they had seen. But when the former, armed with machine guns and gas bombs reached the spot, the Killer had vanished.

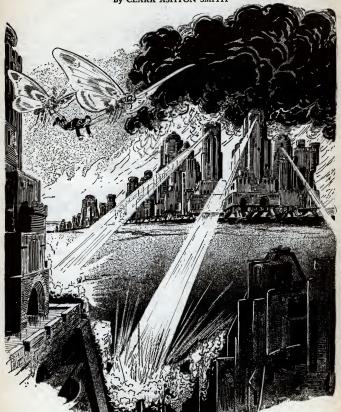
It was four o'clock in the morning when he came to Oracle. Sleep hovered over that mountain hamlet of eighty-nine souls and no one witnessed his coming. He had covered hundreds of miles in his wandering, quartering this way and that. Once he had even stood on the peak above the "window" in the Catalinas and looked down upon Tucson far, far below. He approached Oracle from the south, over the hills and ranges, and on a rocky eminence behind the small town set his burden down.

Frazzini was not dead. He came to himself in the clear mountain dawn lying on a stubble of rock and coarse grass. His uncomprehending eyes at first took in the sky, the rugged scenery, and northward purple

(Concluded on page 803)

Beyond the Singing Flame

By CLARK ASHTON SMITH



(Illustration by Paul)

Beyond the city ramparts, as if wrought by black magic, another city had reared, and its high towers were moving swiftly forward beneath the dome of the burning cloud.

BEYOND THE SINGING FLAME

By the Author of "The City of Singing Flame", "The Amazing Planet", etc.

HEN I, Philip Hastane, gave to the world the journal of my friend Giles Angarth,* I was still doubtful as to whether the incidents related therein were fiction or verity. The trans-

dimensional adventures of Angarth and Felix Ebbonly, the city of the Flame with its strange residents and pilgrims, the immolation of Ebbonly, and the hinted

return of the narrator himself for a like purpose after making the last entry in his diary, were very much the sort of thing that Angarth might have imagined in one of the fantastic novels for which he had become so justly famous.

Add to this the seemingly impossible and incredible nature of the whole tale, and my hesitancy in accepting it as veridical will easily be understood.

However, on the other hand, there was the unsolved and eternally recalcitrant enigma offered by the disappearance of the two men. Both were well known, the one as a writer, the other as an artist; both were in flourishing circumstances, with no serious cares or troubles; and their vanishment, all things considered, was difficult to explain on the ground of any motive less unusual or extraordinary than the one assigned in the

journal.

At first, as I have hinted in my foreword to the published diary, I thought that the whole affair might well have been devised as a somewhat elaborate practical

joke; but this theory became less and less tenable as weeks and months went by and linked themselves slowly into a year, without the reappearance of the presumptive jokers.

Now, at last, I can testify to the truth of all that Angarth wrote-and more. For I too have been in Ydmos, the City of Singing Flame, and have known also the supernal glories and raptures of the Inner Dimension. And of these I must tell, however falteringly and stumblingly, with mere human words, before the vision fades. For these are things which neither I nor any other shall behold or experience again. Ydmos itself is now a riven ruin, and the temple of the Flame has been blasted to its foundations in the basic rock, and the foun-



CLARK ASHTON SMITH

e one assigned in the of my literary labors and personal correspondence in case I should not return, I left Auburn ostensibly for

T O introduce this story, the marvelous sequel to "The City of the Singing Flame," we can do no better than to quote in full Mr. Smith's letter to us.

"In 'Beyond the Singing Flame'," he says, "I have found it advisable to maintain the same suggestive vagueness that characterized the other story; though I have explained many things that were left obscure in the other. The description of the Inner Dimension is a daring flight; and I seem almost to have set myself the impossible task which Dante attempted in his account of Paradise. Granting that human beings could survive the process of revibration in the Flame, I think that the new sense-faculties and powers developed by Hastane, Angarth and Ebbonly are quite logical and possible. Most writers of trans-dimensional tales do not seem to postulate any change of this nature; but it is really quite obvious that there might be something of the kind, since the laws and conditions of existence would be totally different in the new realm.

"I hope that 'The City of Singing Flame' was well-received by your readers. It has brought me several highly laudatory letters from strangers, together with requests for a sequel."

CLARK ASHTON SMITH.

tain of singing fire has been stricken at its source. The Inner Dimension has perished like a broken bubble, in the great war that was made upon Ydmos by the rulers of the Outer Lands. . . .

After editing and publishing Angarth's journal, I was unable to forget the peculiar and tantalizing problems it had raised. The vague but infinitely suggestive vistas

opened by the tale were such as to haunt my imagination recurrently with a hint of half-revealed or hidden mysteries. I was troubled by the possibility of some great mystic meaning behind it all—some cosmic actuality of which the narrator had perceived merely the external veils and fringes.

As time went on, I found myself pondering it perpetually; and more and more I was possessed by an overwhelming wonder, and a sense of something which no mere fiction-weaver would have been likely to invent.

In the early summer of 1931, after finishing a new novel of interplanetary adventure, I felt able for the first time to take the necessary leisure for the execution of a project that had often occurred to me. Putting all my affairs in order, and knitting all the loose ends of my literary labors and personal correspondence in

a week's vacation. I went to Summit with the idea of investigating closely the milieu in which Angarth and

Ebbonly had disappeared from human ken.

With strange emotions, I visited the forsaken cabin south of Crater Ridge that had been occupied by Angarth, and saw the rough, home-made table of pine boards upon which my friend had written his journal and had left the sealed package containing it to be for

warded to me after his

departure.

THERE was a weird ness about the place, as if the non-human infinitudes had already claimed it for their own. The unlocked door had sagged inward from the pressure of high-piled winter snows, and fir-needles had sifted across the sill to strew the unswept floor. Somehow, I know not why, the bizarre narrative became more real and more cred-

ible to me, as if an occult intimation of all that had happened to its author still lingered around the cabin.

This mysterious intimation grew stronger when I came to visit Crater Ridge itself, and to search amid its miles of pseudo-volcanic rubble for the two boulders so explicitly described by Angarth as having a likeness to the pedestals of ruined columns.

Many of my readers, no doubt, will remember his description of the Ridge; and there is no need to enlarge upon it with reiterative detail, other than that which

bears upon my own adventures.

Following the northward path which Angarth must have taken from his cabin, and trying to retrace his wanderings on the long, barren hill, I combed it thoroughly from end to end and from side to side, since he had not specified the location of the boulders. After two mornings spent in this manner without result, I was almost ready to abandon the quest and dismiss the queer, soapy, greenish-grey column-ends as one of Angarth's most provocative and december fixed in the control of t

It must have been the formless, haunting intuition of which I have spoken, that made me renew the search on a third morning. This time, after crossing and re-crossing the hill-top for an hour or more, and weaving tortuously to and fro among the cicada-haunted wild currant bushes and sun-flowers on the dusty slopes, I came at last to an open, circular, rock-surrounded space that was totally unfamiliar. I had somehow missed it in all my previous roamings. It was the place of which Angarth had told; and I saw with an inexpressible thrill the two rounded, worn-looking boulders that were situated in the center of the ring.

I believe that I trembled a little with excitement as I were forward to inspect the curious stones. Bending over, but not daring to enter the bare, pebbly space between them, I touched one of them with my hand, and received a sensation of preternatural smoothness, together with a coolness that was inexplicable, considering that the boulders and the soil about them must have lain unshaded from the sultry August sun for

many hours.

From that moment, I became fully persuaded that Angarth's account was no mere fable. Just why I should have felt so certain of this, I am powerless to say. But it seemed to me that I stood on the threshold of an ultramundane mystery, on the brink of uncharted gulfs. I looked about at the familiar Sierran valleys and mountains, wondering that they still preserved their wonted outlines, and were still unchanged by the contiguity of alien worlds, were still untouched by the luminous glories of arcanic dimensions.

Being convinced that I had indeed found the gateway between the worlds, I was prompted to strange reflections. What, and where, was this other sphere to which my friend had obtained entrance? Was it near at hand, like a secret room in the structure of space? Or was it, in reality, millions or trillions of light-years away by the reckoning of astronomic distance, in a planet of some utterior galaxy?

After all, we know little or nothing of the actual nature of space; and perhaps, in some way that we cannot imagine, the infinite is doubled upon itself in places, with dimensional folds and tucks, and short-cuts whereby the distance to Algenib or Aldebaran is merely a step. Perhaps, also there is more than one infinity. The

spectral "flaw" into which Angarth had fallen might well be a sort of super-dimension, abridging the cosmic intervals and connecting universe with universe.

However, because of this very certitude that I had found the inter-spheric portals, and could follow Angarth and Ebbonly if I so desired, I hesitated before trying the experiment. I was mindful of the mystic danger and irrefragable lure that had overcome the others. I was consumed by imaginative curiosity, by an avid, well-nigh feverish longing to behold the wonders of this exotic realm; but I did not purpose to become a victim to the opiate power and fascination of the Singing Flame.

I stood for a long time, eyeing the old boulders and the harren, pebble-littered spot that gave admission to the unknown. At length I went away, deciding to defer my verture till the following morn. Visualizing the weird doom to which the others had gone so voluntarily and even gladly, I must confess that I was afraid. On the other hand, I was drawn by the fateful allurcruent that leads an explorer into far places and perhaps by something more than this.

I slept badly that night, with nerves and brain excited by comiles, glowing premonitions, by intimations of half-conceived perils and splendors and vastnesses. Early the next morning, while the sun was still hanging above the Nevada Mountains, I returned to Crater Ridge.

I CARRIED a strong hunting-knife and a Colt revolver, and wore a filled cartridge-belt, and also knapsack containing sandwiches and a thermos bottle of coffee. Before starting, I had stuffed my ears tightly with coton soaked in a new anaesthetic fluid, mild but efficacious, which would serve to deafen me completely for many hours. In this way, I felt that I should be immune to the demoralizing music of the fery fountain.

I peered about on the rugged landscape with its wierd and far-flung vistas, wondering if I should ever see it again. Then, resolutely, but with the erric thrilling and shrinking of one who throws himself from a high cliff into some bottomless chasm, I stepped forward into the space between the greyish-green boulders.

My sensations, generally speaking, were similar to those described by Angarth in his diary. Blackness and illimitable emptiness seemed to wrap me round in a dizzy swirl as of rushing wind or milling water, and I went down and down in a spiral descent whose duration I have never been able to estimate. Intolerably stifled, and without even the power to gasp for breath, in the chill, airless vacuum that froze my very muscles and marrow, I felt that I should lose consciousness in another moment, and descend into the greater gulf of death or oblivion.

Something seemed to arrest my fall and I became aware that I was standing still, though I was troubled for some time by a queer doubt as to whether my position was vertical, horizontal, or upside-down in relation to the solid substance that my feet had encountered.

Then the blackness lifted slowly like a dissolving cloud, and I saw the slope of violet grass, the rows of irregular monoliths running downward from where I stood, and the grey-green columns near at hand. Beyond was the titan, perpendicular city of red stone that was dominant above the high and multi-colored vegetation of the plain.

It was all very much as Angarth had depicted it; but somehow, even then, I became aware of differences that were not immediately or clearly definable, of scenic details and atmospheric elements for which his accounts had not prepared me. And, at the moment, I was too thoroughly disequilibrated and overpowered by the vision of it all to even speculate concerning the character of these differences.

As I gazed at the city with its crowding tiers of battlements and its multitude of overlooming spires, I felt the invisible threads of a secret attraction, was seized by an imperative longing to know the mysteries hidden behind the massive walls and the myriad buildings. Then, a moment later, my gaze was drawn to the remote, opposite horizon of the plain, as if by some conflicting impulse whose nature and origin were undiscoverable.

It must have been because I had formed so clear and definite a picture of the scene from my friend's narrative, that I was surprised and even a little disturbed as if by something wrong or irrelevant, when I saw in the far distance the shining towers of what seemed to be another city—a city of which Angarth had not spoken. The towers rose in serried lines, reaching for many miles in a curious arc-like formation, and were sharply defined against a blackish mass of cloud that had reared behind them and was spreading out on the luminous amber sky in sullen webs and shirister, crawling filaments.

Subtle disquietude and repulsion seemed to emanate from the far-off, glittering spires, even, as attraction emanated from those of the nearer city. I saw them quiver and pulse with an evil light, like living and moving things, through what I assumed to be some refractive trick of the atmosphere. Then for an instant, the black cloud behind them glowed with dull, angry crimson throughout its whole mass, and even its questing webs and tendrils were turned into lurid threads of fire.

The crimson faded, leaving the cloud inert and lumpish as before. But from many of the vanward towers, lines of red and violet flame had leaped like outhrust lances at the bosom of the plain beneath them. They were held thus for at least a minute, moving slowly across a wide area, before they vanished. In the spaces between the towers, I now perceived a multitude of gleaning, restless particles, like armies of militant atoms, and wondered if perchance they were living beings. If the idea had not appeared so fantastical, I could have sworn even then that the far city had already changed its position and was advancing toward the other on the plain.

Apart from the fulguration of the cloud, and the flames that had sprung from the towers, and the quiverings which I deemed a refractive phenomenon, the whole landscape before and about me was unnaturally still. On the strange amber air of the Tyrian-tinted grasses, on the proud, opulent foliage of the unknown trees, there lay the dead calm that precedes the stupendous turmoil of typhonic storm or seismic cataclysm. The brooding sky was permeated with intuitions of cosmic menace, was weighed down by a dim, elemental despair.

CHAPTER II

ALARMED by this ominous atmosphere, I looked behind ne at the two pillars which, according to Angarth, were the gateway of return to the human world. For an instant, I was tempted to go back. Then I turned once more to the nearby city; and the feelings I have just mentioned were lost in an oversurging awesomeness and wonder. I felt the thrill of a deep, supernal exaltation before the magnitude of the mighty buildings; a compelling sorecry was laid upon me by the very lines of their construction, by the harmonies of a solemn architectural music. I forgot my impulse to return to Crater Ridge, and started down the slope toward the city.

Soon the boughs of the purple and yellow forest arched above me like the altitudes of Titan-builded aisles, with leaves that fretted the rich heaven in gorgous arabesques. Beyond them, ever and anon, I caught glimpses of the piled ramparts of my destination; but looking back, in the direction of that other city on the horizon, I found that its fulgurating towers were now lost to view.

I saw, however, that the masses of the great somber cloud were rising steadily on the sky; and once again they flared to a swart, malignant red, as if with some unearthly form of sheet-lightning; and though I could hear nothing with my deadened ears, the ground beneath me treinbled with long vibrations as of thunder. There was a queer quality in the vibrations, that seemed to tear my nerves and set my teeth on edge with its throbing, lancinating discord, painful as broken glass or the torment of a tightened rack.

Like Angarth before me, I came to the pawed Cyclopean highway. Following it, in the stillness after the unheard peals of thunder, I felt another and subtler vibration, which I knew to be that of the Singing Flame in the temple at the city's core. It seemed to soothe and exalt and bear me on, to erase with soft caresses the ache that still lingered in my nerves from the torturing pulsations of the thunder.

I me no one on the road, and was not passed by any of the trans-dimensional pligirins, such as had overtaken Angarth. And when the accumulated ramparts loomed above the highest trees, and I came forth from the wood in their very shadow, I saw that the great gate of the city was closed, leaving no crevice through which a pygmy like myself might obtain entrance.

Feeling a profound and peculiar discomfiture, such as one would experience in a dream that had gone wrong, I stared at the grim, unrelenting blankness of the gate, which seemed to be wrought from one enormous sheet of sombre and lusterless metal. Then I peered upward at the sheerness of the wall, which rose above me like an alpine cliff, and saw that the battlements were seemingly deserted.

Was the city forsaken by its people, by the guardians of the Flame? Was it no longer open to the pigrims who came from outlying lands to worship the Flame, and to immolate themselves? With curious reluctance, after lingering there for many minutes in a sort of stupor. I turned way to retrace my steps.

In the interim of my journey, the black cloud had drawn immeasurably nearer, and was now blotting half

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the heaven with two portenous wing-like formations. It was a sinister and terrible sight; and it lightened again with that ominous wrathful flaming, with a detonation that beat upon my deaf ears like waves of disintegrative force, and seemed to lacerate the immost fibers of my body.

I hesitated, fearing that the storm would burst upon me before I could reach the inter-dimensional portals. I saw that I should be exposed to an elemental disturbance of unfamiliar character and supreme violence.

Then, in mid-aid, before the imminent, ever-rising cloud, I perceived two flying creatures, whom I can compare only to gigantic moths. With bright, luminous wings, upon the elon forefront of the storm, they approached me in level but precipitate flight, and would have crashed headlong against the shut gate, if they had not checked themselves with sudden and easy poise.

With hardly a flutter, they descended and paused on the ground beside me, supporting themselves on queer, delicate legs that branched at the knee-joints in floating antennae and waving tentacles. Their wings were sumptuously mottled webs of pearl and madder and opal and orange, and their heads were circled by a series of convex and concave eyes, and were fringed with colling, horn-like organs from whose hollow ends there hung aerial filaments.

I was more than startled, more than amazed by their aspect; but somehow, by an obscure telepathy, I felt assured that their intentions toward me were friendly. I knew that they wished to enter the city, and knew also that they understood my predicament.

Nevertheless, I was not prepared for what happened, With movements of untoo teelerity and grace, one of the giant moth-like beings stationed himself at my right hand, and the other at my left. Then, before I could even suspect their intention, they enfolded my limbs and body with their long tentacles, wrapping me round and round as if with powerful ropes; and carrying me between them as if my weight were a mere trifle, they rose in air and soared at the mighty ramparts!

In THAT swift and effortless ascent, the wall seemed to flow downward beside and beneath us like a wave of molten stone. Dizzily I watched the falling away of the mammoth blocks in endless recession. Then we were level with the broad ramparts, were flying across the unguarded parapets and over a canyon-like space toward the immense rectangular buildings and number-less square towers.

We had hardly crossed the walls, when a weird and flickering glow was cast on the edifices before us by another lightening of the great cloud. The moth-like beings paid no apparent heed, and flew steadily on into the city with their strange faces toward an unseen goal. But, turning my head to peer backward at the storm, I beheld an astounding and appalling spectacle.

Beyond the city ramparts, as if wrought by black magic or the toil of genii, another city had reared, and its high towers were moving swiftly forward beneath the rubescent dome of the burning cloud! A second glance, and I perceived that the towers were identical with those I had beheld afar on the plain. In the interim of my passage through the woods, they had travelled over an expanse of many miles by means of some un-

known motive-power, and had closed in on the city of

Looking more closely, to determine the manner of their locomotion, I saw that they were not mounted on wheels, but on short, massy legs like jointed columns of metal, that gave them the stride of ungainly colossi. There were six or more of these legs to each tower, and near the tops of the towers were rows of huge eye-like openings, from which issued the bolts of red and violet flame I have mentioned before.

The many-colored forest had been burned away by these flames in a league-wide swath of devastation, even to the walls, and there was nothing but a stretch of black, vaporing desert between the mobile towers and the city. Then, even as I gazed, the long, leaping beams began to assail the craggy ramparts, and the topmost parapets were melting like lawa beneath them.

It was a scene of utmost terror and grandeur; but, a moment later, it was blotted from my vision by the buildings among which we had now plunged.

The great lepidopterous creatures who bore me went on with the speed of eyrie-questing eagles. In the course of that flight, I was hardly capable of conscious thought or volition, I lived only in the breathless and giddy freedom of aerial movement, of dream-like levitation above the labyrinthine maze of stone immensitudes and mar-

vels.

Also, I was without conscious cognizance of much
that I beheld in that stupendous Babel of architectural
imageries; and only afterwards, in the more tranquil
light of recollection, could I give coherent form and
meaning to many of my impressions. My senses were
stunned by the vastness and strangeness of it all; and
I realized but dimly the cataclysmic ruin that was being
loosed upon the city behind us, and the doom from
which we were fleeing. I knew that war was being
made with unearthly weapons and engineries, by inimical
powers that I could not imagine, for a purpose beyond
my conception; but to me, it all had the elemental com-

catastrophe. We flew deeper and deeper into the city. Broad, platform roofs and terrace-like tiers of balconies flowed away beneath us, and the pavements raced like darkling streams at some enormous depth. Severe cubicular spires and square monoliths were all about and above us; and we saw on some of the roofs the dark, Adantean people of the city, moving slowly and statuesquely, or standing in attitudes of cryptic resignation and despair, with their faces toward the flaming cloud. All were weaponless, and I saw no engineries anywhere, such as might be used for purposes of military defense.

fusion and vague, impersonal horror of some cosmic

Swiftly as we flew, the climbing cloud was swifter, and the darkness of its intermittently glowing dome had overarched the town, its spidery filaments had meshed the further heavens and would soon attach themselves to the opposite horizon. The buildings darkened and lightened with the recurrent fulguration; and I felt in all my tissues the painful pulsing of the thunderous vibrations.

Dully and vaguely, I realized that the winged beings who carried me between them were pilgrims to the temple of the Flame. More and more I became aware of an influence that must have been that of the starry music emanating from the temple's heart. There were soft, soothing vibrations in the air, that seemed to absorb and nullify the tearing discords of the unheard thunder. I felt that we were entering a zone of mystic refuge, of sidereal and celestial security; and my troubled senses were both lulled and exalted.

The gorgeous wings of the giant lepidopters began to slane, I perceived a mammoth pile which I knew at once for the temple of the Flame. Down, still down we went, in the awesome space of the surrounding square; and then I was borne in through the lofty ever-open entrance, and along the high hall with its thousand columns.

It was like some corridor in a Karnak of titan words. Pregnant with strange balsams, the dim, mysterious dusk enfolded us; and we seemed to be entering realms of premundane antiquity and transstellar immensity, to be following a pillared cavern that led to the core of some ultimate star.

It seemed that we were the last and only pilgrims; and also that the temple was deserted by its guardians; for we met no one in the whole extent of that column crowded gloom. After awhile, the dusk began to lighten, and we plunged into a widening beam of radiance, and then into the vast central chamber in which soared the fountain of green fire.

I remember only the impression of shadowy, flickering space, of a vault that was lost in the azure of infinity, of colossal and Memmonian statues that looked down from Himalaya-like altitudes; and, above all, the dazzling jet of flame that aspired from a pit in the pavement and rose in air like the visible rapture of gods.

But all this I saw and knew for an instant only. Then I realized that the beings who bore me were flying straight toward the flame on level wings, without the slightest pause or flutter of hesitation!

THERE was no room for fear, no time for alarm, in the dazed and chaotic turmoil of my sensations. I was stupefied by all that I had experienced; and, moreover, the drug-like spell of the Flame was upon me, even though I could not hear its fatal singing. I believe that I struggled a little, by some sort of mechanical muscular revulsion, against the tentacular arms that were wound about me. But the lepidopters gave no heed; and it was plain that they were conscious of nothing but the mounting fire and its seductive music.

I remember, however, that there was no sensation of actual heat, such as might have been expected, when we neared the soaring column. Instead, I felt the most ineffable thrilling in all my fibers, as if I were being permeated by waves of celestial energy and demiurgic ecstacy. Then we entered the Flame.

Like Angarth before me, I had taken it for granted that the fate of all those who flung themselves into the Flame was an instant though blissful destruction. I expected to undergo a briefly flaring dissolution, followed by the nothingness of utter annihilation. The thing which really happened was beyond the boldest reach of speculative thought, and to give even the meagerest idea of my sensations would beggart he resources of language.

The Flame enfolded us like a green curtain, blotting from view the great chamber. Then it seemed to me that I was caught and carried to supercelestial heights in an upward-rushing cataract of quintessential force and decific rapture and all-illuminating light. It seemed that I, and also my companions, had achieved a god-like union with the Flame; that every atom of our bodies had undergone a transcendental expansion, was winged with ethereal lightness; that we no longer existed, except as one divine, indivisible entity, soaring beyond the trammels of matter, beyond the limits of time and space, to attain undernamble shores.

Unspeakable was the joy, and infinite was the freedom of that ascent, in which we seemed to overpass the cenith of the highest star. Then, as if we had risen with the Flame to its culmination, had reached its very

apex, we emerged and came to a pause.

My senses were faint with exaltation, my eyes were blind with the glory of the fire; and the world on which I now gazed was a vast arabesque of unfamiliar forms, and bewildering hues from another spectrum than the one to which our eyes are habituated. It swirled before my dizzy eyes like a labyrinth of gigantic jewels, with interweaving rays and tangled lusters; and only by slow degrees was I able to establish order and distinguish detail in the surging riot of my perceptions.

All about me were endless avenues of super-prismatic opal and jacinth, arches and pillars of ultra-violet gems, of transcendent sapphire, of unearthly ruby and amethyst, all suffused with a multi-tinted splendor. I appeared to be treading on jewels; and above me was a

iewelled sky.

Presently, with recovered equilibrium, with eyes adjusted to a new range of cognition, I began to perceive the actual features of the landscape. With the two mothlike beings still beside me, I was standing on a milliom-flowered grass, among trees of a paradisal vegetation, with fruit, foliage, blossoms and trunks whose very forms were beyond the conception of tri-dimensional life. The grace of their drooping boughs, of their fetted fronds, was inexpressible in terms of earthly line and contour; and they seemed to be wrought of pure, ethercal substance, half-translucent to the empyrean light, which accounted for the gem-like impression I had first received.

I breathed a nectar-laden air; and the ground beneath me was ineffably soft and resilient, as if it were composed of some higher form of matter than ours: My physican sensations were those of the utmost buoyancy and well-being, with no trace of fatigue or nervousress, such as might have been looked for after the unparalleled and marvellous events in which I had played a part. I felt no sense of mental dislocation or confusion; and, apart from my ability to recognize unknown colors and non-Euclidean forms, I began to experience a queer alteration and extension of tactility, though which it seemed that I was able to touch remote objects.

CHAPTER III

The Inner Dimension

HE radiant sky was filled with many-colored suns, like those that might shine on a world of some multiple solar system. But strangely, as I gazed, their glory became softer and dimmer, and the brilliant luster of the trees and grass was gradually subdued, as if by encroaching twilight.

I was beyond surprise, in the boundless marvel and

mystery of it all; and nothing, perhaps, would have seemed incredible. But if anything could have amazed me or defied belief, it was the human face-the face of my vanished friend, Giles Angarth, which now emerged from among the waning jewels of the forest, followed by that of another man whom I recognized from photographs as Felix Ebbonly.

They came out from beneath the gorgeous boughs and paused before me. Both were clad in lustrous fabrics, finer than Oriental silk, and of no earthly cut or pattern. Their look was both joyous and meditative; and their faces had taken on a hint of the same translucency that characterized the ethereal fruits and blossoms.

"We have been looking for you," said Angarth, "It occurred to me that after reading my journal, you might be tempted to try the same experiments, if only to make sure whether the account was truth or fiction. This is Felix Ebbonly, whom I believe you have never met."

It surprised me when I found that I could hear his voice with perfect ease and clearness; and I wondered why the effect of the drug-soaked cotton should have died out so soon in my auditory nerves. Yet such details were trivial, in face of the astounding fact that I had found Angarth and Ebbonly; that they, as well as I, had survived the unearthly rapture of the Flame.

"Where are we?" I asked, after acknowledging his introduction. "I confess that I am totally at a loss to comprehend what has happened,"

"We are now in what is called the Inner Dimension." explained Angarth. "It is a higher sphere of space and energy and matter than the one into which we were precipitated from Crater Ridge; and the only entrance is through the Singing Flame in the city of Ydmos. The Inner Dimension is born of the fiery fountain, and sustained by it; and those who fling themselves into the Flame are lifted thereby to this superior plane of vibration. For them, the outer worlds no longer exist. The nature of the Flame itself is not known, except that it is a fountain of pure energy, springing from the central rock beneath Ydmos, and passing beyond mortal ken by virtue of its own ardency.'

He paused, and seemed to be peering attentively at the winged entities, who still lingered at my side. Then he continued:

"I haven't been here long enough to learn very much, myself; but I have found out a few things; and Ebbonly and I have established a sort of telepathic communication with the other beings who have passed through the Flame. Many of them have no spoken language, nor organs of speech; and their very methods of thought are basically different from ours, because of their divergent lines of sense-development, and the varying conditions of the worlds from which they come. But we are able to communicate a few images.

"The persons who came with you are trying to tell me something," he went on. "You and they, it seems, are the last pilgrims who will enter Ydmos and attain the Inner Dimension. War is being made on the Flame and its guardians by the rulers of the outer lands, because so many of their people have obeyed the lure of the singing fountain and have vanished into the higher sphere. Even now their armies have closed in upon Ydmos, and are blasting the city's ramparts with the force-bolts of their moving towers.

I told him what I had seen, comprehending now much that had been obscure heretofore. He listened gravely; and then said:

"It has long been feared that such war would be made sooner or later. There are many legends in the Outer Lands, concerning the Flame and the fate of those who succumb to its attraction; but the truth is not known, or is guesssed only by a few. Many believe, as I did, that the end is destruction; and even by some who suspect its existence, the Inner Dimension is hated, as a thing that lures idle dreamers away from worldly reality. It is regarded as a lethal and pernicious chimera, or a mere poetic dream, or a sort of opium paradise.

"There are a thousand things to tell you, regarding the inner sphere, and the laws and conditions of being to which we are now subject, after the revibration of all our component atoms and electrons in the Flame. But at present there is no time to speak further, since it is highly probable that we are all in grave dangerthat the very existence of the Inner Dimension, as well as our own, is threatened by the inimical forces that are destroying Ydmos.

"There are some who say that the Flame is impregnable, that its pure essence will defy the blasting of all inferior beams, and its source remain impenetrable to the lightnings of the Outer Lords. But most are fearful of disaster, and expect the failure of the fountain itself when Ydmos is riven to the central rock.

"Because of this imminent peril, we must not tarry longer. There is a way which affords egress from the inner sphere to another and remoter cosmos in a second infinity-a cosmos unconceived by mundane astronomers, or by the astronomers of the worlds about Ydmos. The majority of the pilgrims, after a term of sojourn here, have gone on to the worlds of this other universe; and Ebbonly and I have waited only for your coming before following them. We must make haste, and delay no more, or doom will overtake us."

E VEN as he spoke, the two moth-like entities, seeming to resign me to the care of my human friends, arose on the jewel-tinted air and sailed in long, level flight above the paradisal perspectives whose remoter avenues were lost in glory. Angarth and Ebbonly had now stationed themselves beside me; and one took me by the left arm, and the other by the right,

'Try to imagine that you are flying," said Angarth. "In this sphere, levitation and flight are possible through will-power; and you will soon acquire the ability. We shall support and guide you, however, till you have grown accustomed to the new conditions, and are in-

dependent of such help.

I obeyed his injunction, and formed a mental image of myself in the act of flying. I was amazed by the clearness and verisimilitude of the thought-picture, and still more by the fact that the picture was becoming an actuality! With little sense of effort, but with exactly the same feeling that characterizes a levitational dream, the three of us were soaring from the jeweled ground, were slanting easily and swiftly upward through the glowing air.

Any effort to describe the experience would be foredoomed to futility; since it seemed that a whole range of new senses had been opened up in me, together with corresponding thought-symbols for which there are no words in human speech. I was no longer Philip Hastane, but a larger and stronger and freer entity, differing as much from my former self as the personality developed beneath the influence of hashish or kaya would differ,

The dominant feeling was one of immense joy and liberation, coupled with a sense of imperative haste, of the need to escape into other realms where the joy would endure eternal and unthreatened. My visual perceptions, as we flew above the burning, lucent woods, were marked by intense aesthetic pleasure. It was as far above the normal delight afforded by agreeable imagery as the forms and colors of this world were beyond the cognition of normal eyes. Every changing image was a source of veritable ecstasy; and the ecstasy mounted as the whole landscape began to brighten again and returned to the flashing, scintillating glory it had worn when I first beheld it,

We soared at a lofty elevation, looking down on numberless miles of labyrinthine forest, on long luxurious meadows, on voluptuously folded hills, on palatial buildings, and waters that were clear as the pristine lakes and rivers of Eden. It all seemed to quiver and pulsate like one living, effulgent, ethereal entity; and waves of radiant rapture passed from sun to sun in the splendor-crowded heaven.

As we went on, I noticed again, after an interval, that partial dimming of the light, that somnolent, dreamy saddening of the colors, to be followed by another period of ecstatic brightening. The slow, tidal rhythm of this process appeared to correspond to the rising and falling of the Flame, as Angarth had described it in his journal; and I suspected immediately that there was some connection.

No sooner had I formulated this thought, when I became aware that Angarth was speaking. And yet I am not sure whether he spoke, or whether his worded thought was perceptible to me through another sense than that of physical audition. At any rate, I was cognizant of his comment:

You are right. The waning and waxing of the fountain and its music is perceived in the Inner Dimension as a clouding and lightening of all visual images."

Our flight began to swiften, and I realized that my companions were employing all their psychic energies in an effort to redouble our speed. The lands below us blurred to a cataract of streaming color, a sea of flowing luminosity; and we seemed to be hurtling onward like stars through the fiery air.

The ecstasy of that endless soaring, the anxiety of that precipitate flight from an unknown doom, are incommunicable. But I shall never forget them, and never forget the state of ineffable communion and understanding that existed between the three of us. The memory of it all is housed in the deepest and most abiding cells of my brain.

Others were flying beside and above and beneath us now, in the fluctuant glory: pilgrims of hidden worlds and occult dimensions, proceeding as we ourselves toward that other cosmos of which the Inner Sphere was the ante-chamber. These beings were strange and outré beyond belief in their corporeal forms and attributes: and vet I took no thought of their strangeness, but felt toward them the same conviction of fraternity that I felt toward Angarth and Ebbonly.

OW, as we still went on, it appeared to me that my two companions were telling me many things; were communicating, by what means I am not sure, much that they had learned in their new existence. With a grave urgency, as if perhaps the time for imparting this information might well be brief, ideas were expressed and conveyed which I could never have understood amid terrestrial circumstances. Things that were inconceivable in terms of the five senses, or in abstract symbols of philosophic or mathematic thought, were made plain to me as the letters of the alphabet.

Certain of these data, however, are roughly conveyable or suggestible in language. I was told of the gradual process of initiation into the life of the new dimension, of the powers gained by the neophyte during his term of adaptation; of the various recondite aesthetic iovs experienced through a mingling and multiplying of all the perceptions; of the control acquired over natural forces and over matter itself, so that raiment could be woven and buildings reared solely through an act of

I learned also of the laws that would control our passage to the further cosmos, and the fact that such passage was difficult and dangerous for anyone who had not lived a certain length of time in the Inner Dimension. Likewise, I was told that no one could return to our present plane from the higher cosmos, even as no one could go backward through the Flame into Ydmos.

Angarth and Ebbonly had dwelt long enough in the Inner Dimension (they said) to be eligible for entrance to the worlds beyond; and they thought that I too could escape through their assistance, even though I had not yet developed the faculty of spatial equilibrium necessary to sustain those who dared the interspheric path and its dreadful sub-jacent gulfs alone.

There were boundless, unforeseeable realms, planet on planet, universe on universe, to which we might attain, and among whose prodigies and marvels we could dwell or wander indefinitely. In these worlds, our brains would be attuned to the comprehension or apprehension of vaster and higher scientific laws, and states of entity beyond those of our present dimensional milieu.

I have no idea of the duration of our flight; since, like everything else, my sense of time was completely altered and transfigured. Relatively speaking, we may have gone on for hours; but it seemed to me that we had crossed an area of that supernal terrain for whose transit many years or centuries might well have been required.

Even before we came within sight of it, a clear pictorial image of our destination had arisen in my mind, doubtless through some sort of thought-transference. I seemed to envision a stupendous mountain range, with alp on celestial alp, higher than the summer cumuli of earth; and above them all the horn of an ultra-violet peak whose head was enfolded in a hueless and spiral cloud, touched with the sense of invisible chromatic overtones, that seemed to come down upon it from skies beyond the zenith. I knew that the way to the outer cosmos was hidden in the high cloud.

On, on, we soared; and at length the mountain-range

appeared on the far horizon, and I saw the paramount peak of ultra-violet with its dazzling crown of cumulus. Nearer still we came, till the strange volutes of cloud were almost above us, towering to the heavens and vanishing among the vari-colored suns. We saw the gleaming forms of pilgrims who preceded us, as they entered the swirling folds.

At this moment, the sky and the landscape had flamed again to their culminating brilliance, they burned with a thousand hues and lusters; so that the sudden, unlookedfor eclipse which now occurred was all the more complete and terrible.

Before I was conscious of anything amiss, I seemed to hear a despairing cry from my friends, who must have felt the oncoming calamity through a subtler sense than any of which I was yet capable.

Then, beyond the high and luminescent alp of our destination, I saw the mounting of a wall of darkness, dreadful and instant and positive and palpable, that rose everywhere and toppled like some Atlantean wave upon the irised suns and the fiery-colored vistas of the Inner Dimension.

We hung irresolute in the shadowed air, powerless and hopeless before the impending catastrophe, and saw that the darkness had surrounded the entire world and was rushing upon us from all sides. It ate the heavens, it blotted the outer suns; and the vast perspectives over which we had flown appeared to shrink and shrivel like a blackened paper. We seemed to wait alone for one terrible instant, in a center of dwindling light, on which the cyclonic forces of night and destruction were impinging with torrential rapidity.

The center shrank to a mere point—and then the darkness was upon us like an overwhelming mealstrom,—like the falling and crashing of cyclopean walls. I seemed to go down with the wreck of shattered worlds in a roaring sea of vortical space and force, to descend into some intra-stellar pit, some ultimate limbo to which the shards of forgotten suns and systems are flung. Then, after a measureless interval, there came the sensation of violent impact, as if I had fallen among these shards, at the bottom of the universal night.

STRUGGLED back to consciousness with slow, prodigious effort, as if I were crushed beneath some irremovable weight, beneath the lightless and inert debris of galaxies. It seemed to require the labors of a Titan to lift my lids; and my body and limbs were heavy as if they had been turned to some denser element than human flesh; or had been subjected to the gravitation of a grosser planet than the earth.

My mental processes were benumbed and painful and confused to the last degree; but at length I radized that I was lying on a riven and tilted pavement, among gigantic blocks of fallen stone. Above me, the light of a livid heaven came down among overturned and jagged walls that no longer supported their colossal dome. Close beside me, I saw a fuming pit, from which a ragged rift extended through the floor, like the chasm wrought by an earthquake.

I could not recognize my surroundings for a time; but at last, with a toilsome groping of thought, I understood that I was lying in the ruined temple of Ydmos. The pit whose grey and acrid vapors rose beside me was that from which the fountain of singing flame had

It was a scene of stupendous havoc and devastation. The wrath that had been visited upon Ydmos had left no wall nor pylon of the temple standing. I stared at the blighted heavens from an architectural ruin in which the remains of On and Angkor would have been mere rubble-heavs.

With herculean effort, I turned my head away from the smoking pit, whose thin, sluggish fumes curled upward in fantasmal coils where the green ardor of the Flame had soared and sung. Not until then did I perceive my companions. Angarth, still insensible, was lying near at hand; and just beyond him I saw the pale, contorted face of Ebbonly, whose lower limbs and body were pinned down by the rough and broken pediment of a fallen pillar.

Striving as in some eternal nightmare to throw off the leaden-clinging weight of my inertia, and able to bestir myself only with the most painful slowness and labori-ousness, I got somehow to my feet and went over to Ebbonly. Angarth, I saw at a glance, was uninjured, and would presently regain consciousness; but Ebbonly, Crushed by the monolithic mass of stone, was dying swiftly; and even with the help of a dozen men, I could not have released him from his imprisonment; nor could I have done anything to pallate his agony.

He tried to smile, with gallant and piteous courage,

as I stooped above him.

"It's no use—I'm going in a moment," he whispered:
"Good-bye, Hastane—and tell Angarth good-bye for
me, too." His tortured lips relaxed, his eyelids dropped,
and his head fell back on the temple pavement. With
an unreal, dream-like horror, almost without emotion, I
saw that he was dead. The exhaustion that still beset
me was too profound to permit of thought or feeling;
it was like the first reaction that follows the awakening
from a drug-debauch. My nerves were like burnt-out
wires, my muscles were dead and unresponsive as clay,
my brain was ashen and gutted as if a great fire had
burned within it and had gone out.

Somehow, after an interval of whose length my memory is uncertain, I managed to revive Angarth, and he sat up dully and dazedly. When I told him that Ebbonly was dead, my words appeared to make no impression upon him; and I wondered for awhlie if he had understood. Finally, rousing himself a little with evident difficulty, he peered at the body of our friend, and seemed to realize in some measure the horror of the situation. But I think he would have remained there for hours, or perhaps for all time, in his utter despair and lassitude, if I had not taken the initiative.

"Come," I said, with an attempt at firmness. "We

must get out of this."

"Where to?" he queried, dully. "The Flame has failed at its source; and the Inner Dimension is no more. I wish I were dead, like Ebbonly—I might as well be, judging from the way I feel."

"We must find our way back to Crater Ridge," I said.
"Surely we can do it, if the inter-dimensional portals

have not been destroyed."

Angarth did not seem to hear me; but he followed obediently when I took him by the arm and began to seek an exit from the temple's heart among the roofless halls and overturned columns. My recollections of our return are dim and confused, and are full of the tediousness of some interminable delirium. I remember looking back at Ebbonly, lying white and still beneath the massive pillar that would serve as an eternal monument; and I recall the mountainous ruins of the city, in which it seemed that we were the only living beings. It was a wilderness of chaotic stone, of fused, obsidian-like blocks, where streams of molten lava still ran in the mighty chasms, or poured like torrents adown unfathomable pits that had opened in the ground. And I remember seeing and the week-age the charred bodies of those dark colossi who were the people of Ydmos and the warders of the Flame.

Like pygmies lost in some shattered fortalice of the giants, we stumbled onward, strangling in mephitic and metallic vapors, reeling with weariness, dizzy with the heat that emanated everywhere to surge upon us in buffeting waves. The way was blocked by overthrown buildings, by topoled towers and battlements, over which we climbed precariously and toilsomely; and often we were compelled to divagate from our direct course by enormous rifts that seemed to cleave the foundations of the world

The moving towers of the wrathful Outer Lords had withdrawn, their armies had disappeared on the plain beyond Ydmos, when we staggered over the riven and shapeless and scoriac crags that had formed the city's ramparts. Before us there was nothing but desolation a fire-blackened and vapor-vaulted expanse in which no tree or blade of grass remained.

Across this waste we found our way to the slope of violet grass above the plain, which had lain beyond the path of the invaders' bolts. There the guiding monoliths, reared by a people of whom we were never to learn even the name, still looked down on the fuming desert and the mounded wrack of Ydmos. And there, at length, we came once more to the greyish-green columns that were the gateway between the worlds.

THE END

For the December Issue

In Addition to the Marvelous JOHN TAINE NOVEL

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"THE TERROR FROM THE SEA"

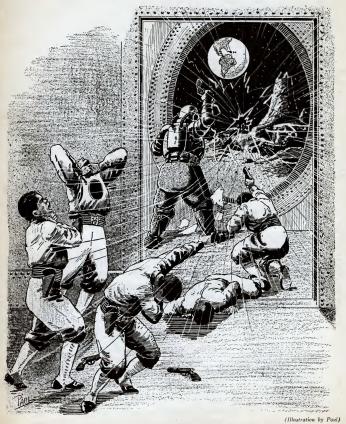
Is the Contribution of Robert Arthur, Jr.

A lonely man works in a cavern laboratory, far from civilization. Around him crawling, heaping higher and higher, smothering, tearing at him are the Terrors. He works frantically, completing the last details of the experiment that shall determine life or extinction for the race. With an exhausted world listening to his last words over his radio, he gives it his secret. . . This is the background of this terrific story of a devastating menace that came from the set's depths. . .

AND OTHERS IN THE DECEMBER, 1931, WONDER STORIES
On All Newsstands November 1.

Emperors of Space

By JEROME GROSS and RICHARD PENNY



A rush of air pinned him to the wall as the life-giving atmosphere was sucked away. His pursuers gasping for breath collapsed.

ELL, so long, old man." Luke Raleigh grasped briefly the greasy hand of Jim, his grizzled and ancient mechanic, and stepped from the lab

room. He thrust a sealed envelope at Jim. "Accidents do happen. How much soft-graphine did you put in the

ball-and-socket bearing?"

Jim, clutching the Frisco News in one hand and the envelope in the other, replied absent-mindedly, "Forty pounds, grade .0037-that's the softest we've got. And there are 250 pounds in the automatic feed. I was just reading in the paper-"

"Another Hollywood divorce, I suppose. Jim, you're the biggest old woman I ever saw. This next test completes my data on the viscosity of colloids at high speeds, and you bother me with newspaper accounts of the night-life of Bio-Film stars. Halsted here is the man for gossip.'

Affection tinged the voice of the wry little Swede as he clapped his aged mechanic on the shoulder. But Jim Borden knew that the scientist had his head too full of viscosity to grasp the import of the two-inch bit of news

he had found in his paper. "It's the scientific imagination, you know, Jim." Harry Halsted warbled blithely and sympathetically. "Utterly blind to the merely human aspects of existence."

TEROME GROSS

"Chatter away-I'm getting the day's chemicals into

the gyro-car.'

Jim turned from the retreating slim-shouldered figure of the scientist to the friendly smile of Harry Halsted, millionaire-dilletante, whose athletic young figure. coolly clad against the July weather in perfectly tailored flannels, sprawled in a

swivel chair. "It's really scientific news." explained Jim

apologetically. Don't mind Luke. His

little joke, you know." Harry scanned the print

under Iim's grimy fin-

"A. O. P. Pekin, July 9, 1952. Consternation was reported in offices of United Asiatic Depart-ment of Agriculture yes-terday as land-supervisor from the interior of Eighth Province brought in a specimen of diseased soil. His test tubes contained samples of earth typically infected by mys-terious 'yellow-rot' which renders vegetation poisonous to cattle. Censorship expected. He whistled surprise.

"This may mean a lot.

office to the concrete floor of the huge gyro-

Crazy peasants! The Japs ought to enforce cremation in Asia. Root out ancestor worship and those centuryold gravevards where any organic anomaly might evolve. Luke will be wild about this."

"I wanted to tell you at once. I spotted three foreigners as I was driving up from town this morning. They were changing a tire on a Tokio Eight, half way up the mountain. They ducked behind the car when they saw me, but I got a glimpse of their faces. They must be coming here!"

Harry shook his curly head in a resolute negative.

"A lot of good it will do them. I've refused to have any dealings with the Asiatic Union, although they've been pestering me for over a year. And Luke agrees-for of course it's Luke's brains rather than my money that they're fishing for.'

Luke had transferred his testing apparatus into the gyro-car and set the recording instruments. Darting back to the foot of the runway stairs, he shouted for Harry.

"Make it snappy! I've got to start in eight minutes!

"Why so urgent this one morning, Luke? Got something up your sleeve?'

RICHARD PENNY

Harry was puzzled at Luke's having returned to meet him, instead of waiting in the car. And why had the big ball-and-socket joint that supported the lower end of the gyro-axis been so heavily lubricated with extrasoft graphine? And what was in the envelope Luke had given to Jim? The questions bubbled over.

"Is your nerve good?"

"For the twentieth time, man, I tell you I'm not nervy," replied Harry with a disillusioned chuckle. "If

I were a married man, like you, with a couple of husky youngsters burning nitric-acid holes in their rompers, I'd feel differently about things. But with the so-called gaiety of Pacific coast high-life as my only alternative, I prefer helping you poke around among the elements. Frankly, I prefer your kind of excitement to the kind I could find in road-houses and fast parties. But now that that's clear, what did you give Jim?"

They were standing in the middle of the gyroshed, near the immense ball-and-socket.

The gyroscope itself towered fifty feet above

give us a glimpse of what the world of the future may be like. Out of the hundred of thousands of possible worlds of the future, the author must choose one that strikes him as being peculiarly probable and likely to come true. Just as the past has seen great wars, great empires rise and fall, nations

sweep others aside, scientists and writers and

musicians come on the scene and disappear, so

the future will be a repetition of this. But the

conditions of the future will make wars and em-

pires and scientists like nothing we have known

before. Nations that are now friendly, might

by some condition we cannot foretell, become

TIME travelling stories serve one great pur-

elling into another era might be, the story does

pose. No matter what the device for trav-

deadly enemies. And enemies will find that their interests are really the same. It will be a glorious, exciting, dangerous and fascinating world—this world of the future. And a stirring picture of that world is given us in this story, introducing our new authors.

them; beside them yawned the fifty-foot pit through which the gyro could swing-or rather, which allowed the Earth to twist about in its daily rotation without interfering with the whirling gyro, held rigid in etherspace by its tremendous circular momentum. Luke, with one foot on the movable ladder that led up into the little car in the rim of the gyro-wheel, scrutinized his companion's face for a sign of weakness.

"It was a letter to my wife-and my last will and testament."

"But Luke! Are we as badly off as all that?" gasped Harry, losing his self-possession for a moment.

"Probably not. But I want to work with a higher speed than we've ever used before. I'm using a more concentrated Hyperton in the motor-guns, with sharper step-ups. I want to see how the remoter paraffins flow at an inertia-speed beyond what we consider terrestrially normal. Frankly, I'm not sure how the human organism will bear up under it.'

"CENTRIFUGAL force?"
"No, that doesn't worry me, because I've got a hunch that above 'normal' velocities organic matter adapts itself most readily to a circular movement-path. But the experiment may take longer than usual, and the tremendous acceleration may react upon me in some incalculable fashion. So I've taken along an extra sup ply of food-capsules"-he tapped his bulging overall pockets-"and made arrangements for Mary and the kids, in case of the unforeseen. It's Mary I'm worried about-I feel as though I were going off on a pleasure excursion and leaving her behind. But what about your self? I can manage alone, you know."

"Like fun you do. After spending my grandfather's hard-earned money financing your experiments, I'm not going to be shown the gate when excitement turns up at last. Besides, you're the only person I can practise my Esperanto on."-Suddenly his voice was grave. A flood of homesickness rolled over him as he realized the full import of Luke's remark. "I think I will take one last look at the good old Pacific, if you don't mind.'

"Help yourself. I can allow you seven minutes: but with the gyro-axis where it is, we've got to cut loose from the shed soon; otherwise mother Earth wobbling about in her career may bump into our whirling gyro. When we build our next gyro-pit we'll pivot the gyroaxis to a heavy arm, leaving the gyro free on every other side: then I won't have to figure my starting time so close."

"Luke, for a poor man you're a wonder. You can spend money faster than granddad could make it, and that's going some."

There was no offense in this speech, for in their common scientific enthusiasm the two young men forgot all class differences, except for purposes of jest. Harry stepped briskly to the door of the shed and gazed down the mountain and across the foothills to the distant sea. From the heights its blue was darkly deep as the night sky, and the hazy glare of morning sunlight on the water was like the glow of an electric current passed through a vacuum tube. A minute of silent farewell contemplation was abruptly terminated as Harry spied the Tokio Eight, half-hidden in the tall wayside grasses half a mile down the road. It was empty!

Quickly he made a circuit of the shed, but discovered

no one. On a sudden impulse, he returned through the lab-office, to get his automatic from the drawer. It was gone!

Where was Jim? Harry was about to search for the missing mechanic when Luke's insistent shouts called him back to the gyro. He scrambled up the movable ladder; Luke paced the platform impatiently.

"Jim's gone! and my revolver! "Curse him! How are we going to get this platform wheeled away from here? I told him to stick around."

"But Luke-something's up! A trio of Orientals have been snooping around-I'm sure of it. Jim may be in danger."

"There he is now!"

The angry crack of a revolver drew their electrified gaze to the door of the gyro-shed. Silhouetted against the pale blue of the sky stood Jim's bent frame, one arm upraised, clutching the automatic. The arm descended. Crack! . . . Crack!

"Get going, boys! I've got two of the dirty . . . " Jim's shout was cut short by another shot; he crumpled in the doorway. Five more shots reverberated through the spacious shed. Jim's mysterious assailant pumped the prostrate body full of lead; he was taking

no chances of half-murder. "Harry! Jim's killed! Why didn't you tell me!"

"Nobody told me! But we'll get the devils!" Harry was about to leap down the ladder when Luke snatched him back.

"Don't be a fool! You're unarmed, and somebody means business. Duck!"

They crouched on the light wire platform as a vicious bit of lead flattened against the wall of the gyro-car. "Surrender yourselves! You are lacking in the means of the defense," cried a foreign voice in grammar-book

A stunted figure advanced through the doorway, trampling remorselessly over the lifeless body of the mechanic. The intruder raised a pistol. Two shots whistled through the steel rigging. Luke touched his fingers to his stinging cheek. Blood! They were cornered by an expert marksman, with no compunction

about cold-blooded murder. Then, encouraged by the

apparent helplessness of his entrapped victims, the ori-

ental ran catlike towards them. "Ouick, into the car!"

"What, and die like rats in a hole?"

But Luke gave Harry a push, plunged in after him, swung shut the trap-door, taking a slug of lead across the knuckles. Their attacker sprang to the top of the wire ladder.

"We shall have to proceed with our experiment," was Luke's curt comment, "and you'll have to buy me a new mounting platform, since our aggressive friend out there is not likely to move that one out of our way."

Luke, habitually cautious, snapped on the oxygen generator and touched the ignition switch.

"We may not need the oxygen, but one can never tell how the human organism will behave in strange circumstances. Are you sure you want to go?

Harry glanced through the single quartzite port-hole of the narrow chamber. A slant-eyed gunman crouched on the steps, levelling the black mouth of a revolver at the sealed door. A pellet of soft lead spat against the heavy quartzite pane.

"Yes, I'm quite comfortable inside, thank you!"
Luke threw down the ignition switch. The giant
wheel trembled under the impact of the excessive charge
of Hyperton.*

THE motor-guns roared as the gyro lunged into speed.
The mounting platform, struck by the huge wheelspoke, went toppling into the pit below. A throbbing
hum screamed up the scale until it became a shrill whistle
created by the whirling of the titanic top. Through the
scream grated a harsh grinding noise.

"The upper axis, pulling at its bearings!" gasped Luke, braced against the fiercely pressing wall of the car. When the speed-indicator touched 400, he pulled the release switch, setting the upper axis free. The grinding ceased, as the socket that held the upper end of the axis was automatically withdrawn into the roof of the shed. Now the gyro was spinning in space, supported only at one end of its axis.

Harry, flat against the car wall, visualized the surprise of their assailant as his intended victims eluded him. He could imagine the oriental's vain attempt to scramble down the ladder before he was swept over the fifty-foot ledge into the pit.

Luke and Harry were soon more at ease, as they accustomed themselves to the centrifugal pressure against the outer wall. They had often achieved such moderate speeds before. Luke glanced at his organic preparations. He placed them in the exposure chamber and adjusted the recording instruments finally. He studied his wrist-watch anxiously.

"Now for real speed! In thirty seconds we make our first big step-up, and every ten seconds after that. I confess, I put every bit of Hyperton we've manufactured in the last six months into the guns."

The first jar—sharper than any gyro-impact Harry had core experienced—dashed his head against the car wall. He rubbed the bump—then came another joling—and then another! and then another!—another! Dizzied by a rush of blood to his head, his consciousness contracted into a fixed stare at the indicator; 700—1500—that was as fast as the car had ever whired, and that speed had been attained much more gradually. 2700—Luke retained sufficient presence of mind to start the recording instruments working—Harry had completely forgot the viscosity experiment—4100—6300—the acceleration was cumulative!—9400—and Harry passed into his dream.

He was never afterwards able to describe the experience to his own satisfaction. So a sick man, deepdrugged with quinine sinks, after ages of fevered tossing, into his pillow, dropping with infinite speed through an eternal series of super-infinite abyses. He knows no rapidity of movement. Then his consciousness, inexplicably shifting its quest, yet encumbered with heavy shackles of sheep and weariness, reaches out to comprehend infinities of spaciousness. But as he conceives them, he finds them enclosed within other infinities of spaciousness, which must in turn be laboriously comprehended.

This dizzy, feverish emotion absorbed all of Harry's being, as he poised, unconscious of his tremendous motion, in the gyro-car. His little chambered world was

*The gyroscope was activated by atomic explosions released by Hyperton.

isolated from the time and space of a humanity he but dimly remembered. He was transformed into a slowmotion film—slower and slower. He turned his head to look at the speed indicator—the simple muscular movement prolonged itself through ages—whole volumes of history went into the gesture, with a long and detailed chapter to each separate tug of the muscles in his shoulder. His conscious life had been intensified or magnified a thousand fold—or perhaps his physical life had been slowed down a thousand-fold.

Physiological time—time measured in heart-beats and respiration—spread itself thinner and thinner. Days and months of spiritual awareness were concentrated within the gradual ebb and flow of a single pulse. At last he saw the indicator—and another historical epoch of trembling began. Little nervous quivers proceeded with infinite slowness and sureness around his trunk, down his arms and legs—the indicator pointed to zero!

Luke was turning to speak to him. But Luke's movements were infinitely slow and as, after years of waiting, his companion's face was turned towards him. Harry felt himself sinking to the floor. His knees gave way, and an endless painful weariness dwelt within the muscles along the back of his legs as he made his descent into the quinne-abyss to the floor of the car. Then he began to fall more rapidly; gradually his consciousness caught up in the race with physiological time; tides of blood beat through his temples slowly but with ever increasing tempo.

The pounding was unbearable—then the pulses merged into an even flow; he gazed at Luke, sprawled over the table. An inverted dizziness seized him! Ages ago, when he was a child playing in some far-away nursery he had whirled about in the middle of the room; when he had planted his feet firm, the room eddied and wavered about him, the quantir pictures on the wall lunging and twirling crazily—this experience was like that. Nausea welled up within him—was he going to be sick. No—no—he must not be sick. Think of something else—the indicator.

Now the hand stood at 8000—6500—4200—he must not be sick—he clung to the floor.

Suddenly the whole machine quivered; the car reeled and wobbled, like a dying top. Luke and Harry were flung to the roof of the car just in time to receive the impact of a massive blow. The gyroscope had come to rest. The car seemed to waltz and glide about their sickened eyes, and all the hopeless nausea of a lifetime was concentrated into the few minutes it took them to regain their normal eartibound equilibrium.

CHAPTER II

Hemmed In

WHEN at last they were willing to stand, they opened the trap door in the ceiling, on which they were now walking, and paid out the rope ladder. Harry was the first to clamber down it into the lower pit.

"Gosh, I'm hungry," he said, as soon as he could find his voice. "I wonder what Jim has prepared for lunch."

Then he remembered. "Oh, I'm sorry—I had forgot. It was for us he gave his life."

"I wondered what became of that oriental-look!"

said Luke, pointing to where the overturned mountingladder was a heap of rust.

There lay a pile of whitened bones, among them a crushed skull.

"The shed hasn't been kept very tidy," continued Luke. His trembling finger pointed to the thick canopies of cobwebs that hung from the steel girders of the shed. Bats, startled by the crash of the gyroscope, were circling in the dim twilight, twittering.

"Say, you don't mean to tell me I'm Rip Van Winkle, do you? gasped Harry, as a suspicion dawned upon

Further speculation was cut short by a shout from the upper floor of the shed; there by the socket of the gyro-axis were three men, identically clad in white kilts and blouses.

"Comrades!" called one in Esperanto, "we are waiting

for you."

"Take your time," said Harry to Luke, as they mounted a new steel ladder to the upper level. They walked into a square of soldiers-at least, they wore holsters about their white jackets,-and were greeted by a grey-haired man, evidently the commanding officer,

"We are your reception committee," explained the commander in Esperanto. "A royal welcome awaits you in the capitol, to which we shall transport you at once."

Harry scrutinized the faces of the men, They looked like Americans, but they were a mixed lot, apparently ill-disciplined.

"We appreciate your kindness," said Luke to the officer, "but will you kindly explain to us exactly who you are?"

"There will be a time for explanations later," replied

the officer, impatiently. "I must ask you to follow me with all due haste." "That's all right," Harry interrupted. "But of course

I must get those formulae I left in the secret closet in the office."

"What secret-closet-" began Luke, but a vicious glare from Harry silenced him, "Of course,-they are extremely valuable," he added.

Without waiting for permission from the officious gentlemen who had taken them in charge, Harry strode to the Lab-office. He surveyed the room rapidly. The old chairs had been replaced by metal-frame furniture. like aluminum, but lighter and springier, he discovered as he sat in one of them. In place of their old-roll-top desk, was a table of the same metal; on it stood a machine something like a typewriter, from which a sheaf of wires led to the wall. From the pad of blank sheets, headed in English, "United continents of America; National Telotype Service," Harry concluded that the room had been transformed into a communication office. But he was less interested in the function of the machine than in the dark, gummy stains he noticed between the keys.

"Have you found the secret closet?"

From the doorway scowled a yellow, squint-eyed face; the words were half threat, half sneer.

"No-I was just looking around the old office; you've fixed it up very neatly. The closet is in the next room." Harry started towards the door leading into the old

"Those rooms have been walled up," snapped the intruder, quickly blocking the way. "We can recover any-

thing you need, later, after you have been received at the capitol."

Oh, very well. Whatever you say suits me. But I must secure the records of our last experiment in the gyroscope. They afford valuable data for combatting the 'yellow rot' that was afflicting our dear neighbors at the time when the experiment was begun."

The oriental's impatience gave way to an ill-concealed smile of gratification, "Very well, By all means get

the records of your admirable work."

Harry sauntered over to the gyro-pit, down the stairway, and clambered leisurely up the rope ladder. He was determined to delay whatever game was up at all costs. In the gyro-car, he stationed himself at the quartzite window and waited. Those gummy stains had certainly been blood-stains,-recent too. And the official language of American communication was evidently English not Esperanto. Why hadn't they wanted him to examine the lavatory?-Above all, why this unseemly haste?

Luke had been taken from the shed and ushered into a strange, dirigible-shaped flying machine about 100 yards long, lying in the field outside. His trained scientific eye quickly noted the principles of its operation. On both sides, fore and aft, were extended helicopterwings; but what power might impel this novel craft forwards he could not make out.

The commander spied his oriental subordinate at the door of the shed. "Hurry along!" he cried, "And don't leave that fellow loose in there! We've got to get out of here quick!"

THE oriental ran over to the rest of the party, who were about to ascend the gang-plank into the interior of the flying machine. He whispered to the commander.

"Our scientist has discovered an antidote for the yellow-rot!

"Don't be a fool. This one is the scientist. The other only had money .- And we haven't time to drag him out of his hole.'

"I prefer to wait for my companion," Luke protested, but two pairs of arms encircled him and two sullen pistol-eyes stared into his; without further words he was rushed into the airship.

"Have you set the time-bomb?"

"Yes!

The door clanged shut, while Harry waited unsuspecting in the gyro-car.

He had not watched long for the reappearance of his strange hosts when he saw a dozen well-built men in blue and white burst into the shed. They were evidently looking for someone-perhaps for him-but he preferred to take no chances. Three of them hurried into the office and emerged a few seconds later carrying a limp body, also clad in blue and white uniform. Harry was reassured.

He hurried over to meet them, calling in Esperanto

as he went. The reply came in pure English, sweet to his ears.

"We are looking for Harry Halsted and Luke Raleigh!" "I'm Halsted, but Raleigh went away with the gentlemen who got here ahead of you."

A worried look spread over the grizzled face of the commanding officer. He presented himself as Admiral Kane of the United American Air Service, and insisted that the entire party leave the gyro-building at top speed. They were barely fifty yards from the shed when a giant blast threw them all to the ground.

"Just in time. I've had experience with Asiatic war-

fare, and I know their tricks.'

In the field was an airship similar to that which had abduted Luke, and which Admiral Kane described as a rockette—an earth-rocket. Overhead hovered the rest of the American rockette-fleet, more than a dozen of them. But Kane scanned the western sunset sky with his field glasses.

"Fifteen Asiatics. You were an important catch, sir, I assure you. Unfortunately for us, one of their fleet out-distanced the others and got here in time to murder our typograph operator and steal Luke Raleigh."

"Shall we pursue?"

"Afraid not," replied Kane, as he murmured a low command to the rockette-pilot. "They are attacking, with the advantage of both numbers and position. It

looks like a close shave for us."

He led Harry down a narrow corridor encased in a blue cork-like composition to a small but comfortably furnished sitting-room, walled with the same material and indirectly lighted with a soothing, faintly emerald glow. Seated in an easy chair was a girl, clad in a regulation blue jacket that not quite revealed her knees. Her fresh young face was wreathed in tumultous black curls. She smiled warmly, and rose.

"My daughter, Tharia. Tharia, this is Mr. Halsted, the worthy associate of our distinguished ancestor."

"How do you do, Mr. Halsted," came the freshvoiced reply. "Mr. Raleigh, you know, is a famous man —indeed he has been called the father of American science. The experimental data found in your laboratory after the historic battle with the three oriental spies were really the source of all our modern mechanical progress."

"Oriental spies?"

"Of course—don't you know about that? You were there. Every American school child knows that thrilling

"I guess I was just an innocent bystander—though I do recollect some nasty shooting. But perhaps you had better tell me just where and when I am."

Admiral Kane excused himself to take command of the fleet, leaving Harry to learn from Tharia the details

of his present circumstances.

One hundred years ago, in 1952, the United Asiatic Empire, impelled by the last of conquest, had attempted to enlist the services of an obscure American experimenter, Luke Raleigh, by name. All their overtures had been refused and their final attempt at force had failed, owing to the gallant self-sacrifice of the mechanic, Jim Borden. American scientists, given the accumulated data of Raleigh, had built up the modern flight-method. By means of the Colloidal Minimizer, invented in 1967, Hyperton, the powerful atomic-explosive which Raleigh had used in propelling his gyroscope, had been utilized as energy for terrestrial air-craft, or rockettes, as they were called. The Shadow was now moving under the propulsive power of Minimized Hyperton.

"You don't mean to tell me we are flying!" exclaimed

"Indeed we are. But you shall inspect the Shadow

later. Now I must coach you in modern history. I feel as though I were teaching my grandfather."

"Luckily for me, I'm not—I mean—Luke is so much

more grandfatherly than I am."

"He happens to be my great-grandfather on my mother's side. You are in the twenty-first century now, 2055, to be exact, and you came near belonging to the ages. Dad got a teletype message at the government office two hours ago from our operator here, saying that your gyro had slowed down to visibility. Then the message broke off suddenly. It looked like foul play. We knew, of course, what your general plans had been from your scientific writings and notations. Realizing that America's century-long vigil over your experiment was about to end, Dad got here as quickly as he could and brought me along. Just what we expected to find remaining of you, nobody knew. But I am delighted to see you looking so well."

"So am I," replied Harry, with the old twinkle. "But what were the motives of our rambunctious Asiatic reception committee? The soldiers looked American

enough."

"DID they? Then they were probably deserters—escaped convicts. No one else would go over to their side. The dreaded 'vellow rot,' which you may never have heard of, has overrun more and more of their agricultural land, so that the Asiatic Empire is now desperate in its attempt to conquer a new and untainted country. For eighty years they have been storming the Caucasian passes and trying to get a footing on the Atlantic Coast. They are in a bad way. As a matter of fact, things aren't too bright for the rest of the world. There is always the chance that as soon as the Asiatics give up hope of conquest, they may manage to infect our land with 'yellow rot' and so sweep us all into starvation along with them. So far, they have not tried that, as they still have hopes of conquest. But I am nervous sitting here. Let's get forward to the pilot room with Dad and see what's happening. I feel like a bird in a trap."

In the control room, Admiral Kane gnawed his lip in silence.

"How are we making it, Dad?"

Kane said nothing, but indicated a visoplacque of ground glass set in the chart-table. Tharia bent over it

tremulously. "I say, they're pretty close!"

"Yes.—they won their position at the gyroscope shed. See, they have a double line of rockettes, upper and lower." He pointed with his finger in the lower central visoplacque, in which was thrown a picture of the sky to their rear. Harry could hardly see the small black dots of the enemy rockettes, rendered almost invisible by the westward glare of the sun. "Their lower line is swinging a Therin barrage in a vertical plane above us, holding us near the ground. Their upper line is swinging a Therin barrage in an oblique plane behind us. When that upper line, which is making mighty fast time through the thinner air, gets its barrage in front of our line, we are hemmed in. You know what that means."

"Looks bad, Dad?"

Kane nodded and indicated on the other visoplacque of his own fleet, dreadfully visible in the glare of the sun. "But we may give them the slip at Big Ledge."

"May I intrude a stupid question?" asked Harry. "What is the nature of this deadly barrage we must avoid?"

Kane explained briefly the mechanics of modern aerial warfare. "A Therin-stream or ray is an electrical conductor, operative for a distance of five miles. When it strikes a ship, all the electrical apparatus of that ship is short-circuited; the rockette drops to the ground, disabled. There it can be bombed with fiendish coolness."

"But are there no other guns?"

"A rockette moves so fast that to hit it with a shell, especially one fired from another moving rockette, is impossible, even to the most expert marksman. Even in the twentieth century, tacticians realized that to score a hit on a distant object moving in three dimensions is infinitely more difficult than to hit a distant stationary object, like a cathedral."

"But how does your Therin stream make it any

easier?"

"A shell moves through a linear series of points, but a ray moves through a plane or a curved surface. Thus a single Therin Emanator can lay down a two-dimensional barrage, through which a rockette dare not pass. Hence although the finish of a battle is deadly in the extreme, the actual fighting is largely a matter of tactical maneuvering. Just at present, the Empire has a superior position. We cannot hold them off, although our Emanators are as long-ranged as theirs, simply because we must retreat under the protection of a series of overlapping conical barrages. They are raying straight ahead of them; we must swing our rays in wide cones, to keep one of them from slipping in upon us."

"Which fleet has more Emanators?"

"Every rockette carries six-fore and aft, left and right, skyward and earthward. But only one Emanator can function at a time from a single vessel. Two rays operated from nearby Emanator-chambers 'spark' each other, so that to use two Emanators at once is fatal. A central control allows the Therin-generating current to be sent to any one of the six chambers, but only to one at a time. Why, if two of our own rockettes flew too close they would spark each other. American science is working day and night on some device to prevent this sparking, but the problem seems hopeless."

CHAPTER III

In Captivity

LL through this swift explanation, Kane's gaze was riveted to the visoplacques. He heaved a sigh of relief: "Big Ledge in sight!"

A blue flash lighted up the visoplacque. One of the Americans had been short-circuited and had dropped to the ground. A moment later the crippled hulk disappeared in a rending explosion, bombed with easy pre-

Kane picked up the mouthpiece of the radiophone.

"Orders for the fleet."-The operator nodded and plugged busily at the switchboard.

"O. K. sir.

"Nos. 37, 38, 39, and 53 will drop at Big Ledge and set up a vertical barrage. Nos. 40, 42, 43, 48, and 55 will be ready to rise, three miles beyond Big Ledge! Of these, Nos. 40 and 42 will maintain a middle altitude, holding an upward oblique barrage against the upper Asiatic line to prevent their getting over the top at us.

Nos. 43 and 48 will continue to rise, and at a superior height will turn and attack with a downward oblique barrage; taking care to keep clear of American rockettes at Big Ledge. No. 53 remains free under Captain Flint for sharp-shooting. Nos. 60, 61, and this flagship will swing northwards and return for a flank attack."

His crisp commands were punctuated by another blue flash of destruction.

"39 is down!"

But now Big Ledge was visible, barely a quarter of a mile away. The prairie soared upwards to a flat, barren plateau, covered with pale green cactus and prairie grasses, and streaked with vermilion soil. Then it dropped sharply to a vast stretch of lower plain. That was Big Ledge, and behind it a detachment of American rockettes were to create an ambush.

"Wait for my command!" Kane spoke tersely into the mouthpiece. Harry saw that no movement on the part of the retreating fleet betrayed their plans in ad-

"Drop!" ordered Kane.

With perfect precision, three of the American rockettes, already low, glided into the shadow of the massive ledge of rock. Now their rays, directed upwards, swung back and forth in fan-like plane-sections. Would the barrage hold?

The remainder of the fleet continued its eastward course. Another blue flash in the visoplacque! No. 60, the leader, went crashing to the ground. The Asiatics had got their downward barrage ahead of the fleet and were about to cut it down remorselessly from the front.

"Spread and maneuver as directed!"

With a sharp turn the Shadow veered northward; Harry watched the fleet behind, as they rose through the dangerous barrage.

Two sudden flashes in the visoplacque left Harry sick at heart. Were these gallant men to be totally destroyed, merely because they had waited at the gyro shed for him? Tharia must have surmised his emotion, for sheplaced a reassuring hand on his arm,

"Those last two flashes were from Asiatic rockettes;

our ambush is holding."

Another blue flash! A third of the fifteen pursuers went down. The surprised Asiatics were now swinging sharply northwards in confusion, giving the Americans a chance to turn for an attack. It was now almost an ever fight; eleven to twelve. But Kane was confident in the superior marksmanship of his own gunners, now that they were no longer blinded by the sun and boxed in. The Shadow was headed back towards the enemy flank. The captain switched the current to the front Emanatorchamber.

The next five minutes were filled with confusion for Harry as he watched the visoplacques and tried to interpret the record of the strange battle. One flash followed close upon another, and except for the little gasps of delight or chagrin from Tharia, he could not have told which side had scored a hit.

The American gunners were cooler than their adversaries, who, excited by anxiety and fright, tried to score direct hits. The Americans, on the other hand, kept calm under fire, and repeatedly "spiralled" their adversaries. In other words, they knew how to swing the Therin-stream in a narrow cone about the glistening hull of the enemy rockette, then gradually narrowing the cone until one of its surfaces inevitably impinged upon an enemy with a flashing contact.

Finally the Asiatics, reduced to three rockettes, turned and fled to the southwest. The Americans followed, destroying two more of them before relinquishing the chase.

"That last devil is invulnerable!" muttered Kane, as he ordered his fleet together and directed them eastwards. One of his gunners, a personal friend of his, named Mitchell, thought so too, for he burst into the pilot room and demanded to speak to the Admiral.

"Thunder and fish-hooks!" he exclaimed. "I was in the No. I chamber, and I'm sure I had that little rockette spiralled at least three times. But I couldn't draw a flash out of her! What do you make of it, Sir? Thunder and fish-hooks!"

Kane smiled at the quaintness of his gunner's pet oaths, but his face was grave.

"It looks as though the Empire had begun to import Lunite in large quantities,—sufficient to build a small rockette-hull of the stuff. No other known metal is impervious to the Therin-stream. But this young man is asleep on his feet. Get him to bed."

HARRY was glad for the word. When he awoke,
the fleet was at rest in the St. Louis Rockette Port.
He was too drowsy to look around him as Tharia and
Admiral Kane escorted him to their home for further
recurrention.

He had time on the succeeding days to inspect under Tharia's guidance the modern metropolis, with its huge Air-and Space-ports, its clean and airy underground transportation system, its magnificiently tertaced apartment-blocks, its food-distribution centres, its radio university, and its scientific buildings. Above all, he learned more of the mysterious metal Lunite, to which Admiral Kane had attributed the seaze of the Asiatic flarshin.

Eighteen years ago, when Tharia was still in pinafores, a small band of American space-explorers, using a rocket propulsed by Minimized Hyperton, had effected a landing on the moon, and had brought back with them not only geographical and astronomical data, but also specimens of the strange lunar vegetation—Harry saw some of it in the museum, kept alive in a controlled environment,—and of lunar earths.

Among the earths were several elemental metals unknown to science, although they had been predicted by the electro-valent tables of Muzie in 2025. The chief of these, which had been named Lunite, possessed among other characteristics, the unique property of deflecting the Therin-stream. Many American lives had been lost in the establishment of a mining-colony on the moon, for the purpose of exporting to the fatherland the Lunite-ore which was to be used in the manufacture of rockette-hulls for defense against the Asiatic menace.

The severe practical difficulties had been met and surmounted, when a treacherous raid of Asiatic rockets had seized the mining-plant, massacred the colonists, appropriated the hard-won knowledge of the Americans and proceeded to send Lunite-or into Asia. So far, nothing had been made of their theft, but now they were evidently beginning to import in large enough quantities to make Lunite-clad rockettes a staggering military threat.

But chiefly, Harry was continually uneasy about the

fate of Luke. He was shrewd enough to realize that if murder had been The Orientals' intention, they would not have put up their elaborate pretense at the gyro-shed in the attempt to abduct Luke and him peacably.

Luke, who meanwhile had been in the Limite-clad Asiatic rockette, had witnessed nothing of the battle. Immured in a narrow cell next to the barracks where the deserter-soldiers were regaling themselves with dice and chiee, an Asiatic wine, he remained in gnorance of how the flagship had hurried back to the fleet to lead the attack against the American rescue-party. For all he knew, Harry had been atomized in the blast that had ripped open the gyro-shed. Consequently it was something of a relief, when, on the arrival of the rockette in Peking, he was summoned into the presence of government officials.

"We regret that we have not had opportunity to be more cordial to a world-thinker whom we esteem so highly. We represent the United Asiatic Empire, struggling for life in the face of world oppression."*

The speaker, Lu Kong, continued in his ingratiating way to inform Luke of the land disease which had made a national migration imperative, and of the present state of international affairs. Luke, resolved to betray nothing, either of his scientific knowledge or of his in-nate hostility towards these Asiatics, remained impassive as he was told of the fleet of Lunite-clad rockettes that was scheduled for completion within a month, at the present rate of import. Nor did he wince when it was explained to him just how he was to be persuaded to assist, in his capacities as a research scientist, in the deadly combat against all that he held dearest in the world.

On the whole, the orientals relied less upon threats of torture than upon the obvious menace of the yellow-rot. Luke's fate, they stated simply, was now bound up with theirs. And as he gazed out the window of the laboratory that had been assigned to him on an upper floor of one of the governmental skyscrappers, he felt the intensity of the national desperation. The long, level plains and marsh-lands were covered with a luxuriant and rank vegetation, yellowish in color, and deadly poisonous. Nothing fit to eat could be grown in the rotted soil. And the corruption had eaten its way to the very gates of the capital city.

A three hundred-mile strip of land along the coasts remained untainted, and was, of course, intensively cultivated. Even so, dire measures had been adopted. Cities towered higher and higher to accommodate the retreating peasants, stupid and bewildered in the face of the calamity. Rigorous means had been enforced of cutting down the birth rate. Luke saw more than one peasant-mother with brute-like uncomprehending face as her baby was taken from her with the curt explanation-"No room!" But national race-suicide was not a pleasant prospect for the stricken continent. More than once the tender-hearted Luke Raleigh was tempted to cast in his lot with these fear-maddened people against a twentyfirst century race of Americans of whom, after all, he knew nothing. But then one of his perpetual supervisors would brag about the destruction that would be wreaked upon America once the Lunite; clad fleet of rockettes was built-and Luke thought of his native mountains over-*He spoke in Esperanto, the artificial language adopted by the Empire in 1997 to do away with the twenty different Asiatic dielects, which made communication so difficult.

run by hordes of ignorant bestial peasants-and decided against the impulse.

E was guarded every minute of the day and night. A completely equipped modern laboratory had been provided for him.

On his third day in Pekin he was taken by his guards to a regal office for that section of the city, to be questioned more thoroughly about his political attitude. He waited in the examining room while the presiding officer, a Jap, and filled with the arrogance of race and the intoxication of power, interviewed a Chinese laboratory assistant.

The man was pleading for a passport for his aged parents, now starving on a small farm in the plague-area. "They are doomed, estimable sir, to certain death un-

less you allow them entrance into the city of Pekin." "There is no room in our economy for ignorant coun-

try-folk." The Jap's thin lips curled in scorn. "Depart, Chinese dog," he spat, striking the supplicant across the face with the back of his hand.

Like a flash, Luke wrenched free from his guards and planted his fist in the face of the officer. Instantly the guards pinned his arms to his sides in a vise-like grip. The Jap, scarlet with pain and shame, bared his teeth,

"So, estimable scientist, you do not approve of the internal organization of our metropolis. Very well. You shall be removed to a different climate. You may continue your experiments at our colony on the moon. There you can learn what hardship is like." He nodded to an attendant.

Luke, still held fast by the two guards, felt a stinging blow on his jaw. Twice again the attendant hit the defenceless little Swede in the face; then his unconscious body was removed from the office. He was to be shipped to the moon.

Ten days after the arrival, Harry and Tharia were discussing national and personal affairs, when they were interrupted by the Admiral bursting in from his private study.

"Come on, old-timer," shouted Admiral Kane to Harry, "the mine-detectors have located an Asiatic transport-rocket waiting to dock at Pekin, and it's my hunch there's a cargo of Lunite aboard her. I've telephoned the Space-Port to get the Spit-Fire ready.

"But father," protested Tharia, "surely you're not taking our guest on a raiding party. You know what happened to the Spark only last week."

"Of course you are, Admiral," cried Harry, springing to his feet, so eagerly that he did not notice Tharia flush

crimson and bite her lip.

As their electric-car whizzed along the enameled corridors of the underground express channel, Kane explained to Harry that the Asiatic transport-rockets, being comparatively heavy and slow moving craft, were the natural prey of the American light war-cruisers.

"You mean we just pick them off?" queried Harry.

"Then why was Tharia so worried?"

"It's not so easy as all that. There's the big dreadnought escort to be reckoned with. But hop out of here; we need every second."

In a minute the elevator had whisked them up into rocket-tower No. 3 of the Second Division Space-Port, where the Spit-Fire was poised, her Hyperton reservoirs filled, her motors purring, waiting for the spark that would send her careening into space. As they crossed the gang-plank from the embarking platform. Harry noticed that the Spit-Fire was hardly half as tall as the huge dreadnought in Tower No. 2. But she was a neat, squatty little craft, proportioned like a pistolbullet, with a nose that tapered half her length. She was built to turn quickly in flight, in a way that would torment the heavier rockets.

Admiral Kane nodded to the Tower-Captain, spoke a few words to the pilot, and the steel-door glided into the narrow slit of a door-way behind them, and fitted into place as part of the hull.

The pilot reported: "Crew all at posts; fuel for thirty hours: wireless O. K."

"Earth magnet?"

"Two degrees error, direction Beta. It's been off just that much for three months, so it's perfectly reliable.' 'How's space?"

"Clear at this degree of the earth's orbit, except for one large meteorite in sphere 97, at 1 degree, 45 minutes Beta, and 287, 39, 12 Gamma. It's nothing to worry about; I've been steering clear of it since 2033, when it was first charted."

"All right, let her go. Sit down, Harry!"

"This is all right, thanks."

A second later a low gong clanged through the rocket. and Harry found himself sprawling in the leather chair behind him.

"Well, I will have a seat, after all," laughed Harry. "These cruisers aren't built for the comfortable easy start of a passenger vessel," explained the pilot. "Right now you're about a mile from mother earth."

Harry dashed to the vitrite port-hole to look back. Now for the first time he noticed the faint hissing of the exploding gases. The landscape dropped away behind them. Roadways, blocks of houses, checkered fields, and silvery ribboned rivers-the whole terrain was contracting, like the painted figures on a slowly deflated toy balloon. From the horizon's rim, more and more landscape appeared and drew in towards the centre. Then as Harry stared, grey and golden wisps of cloud blotted out first one section and then another. Soon the details of earth were lost in the glistening shroud of moisture. and then in the blackening sky the stars appearedsteadily burning, without a twinkle. The Spit-Fire had emerged from the Earth's atmosphere.

"Want to look around a bit, before we get into ac-

tion?" asked the Admiral.

Harry was eager to learn the lay-out of a war-rocket. "Here's the central corridor, right along the axis of the ship. The pilot-room's at the tip; the soldiers' barracks are at the rear, separated by triple walls from the combustion chambers. These four passageways lead out to the four Emanator-chambers. Come along. This is Corporal Graham, who manipulates Therin-gun D. When that signal-light goes on, he knows that the central power has been switched to him, and he starts spiralling his Therin-stream on the enemy. I must be getting back now. You may stay here.'

CHAPTER IV The Lunar Prison

TARRY was overwhelming Corporal Graham with questions, when the rocket swung about, bringing the earth into view, no bigger than a large push-ball which they were about to cast away. The Spit-Fire was cruising parallel to the Earth's surface, along sphere 9, looking for the tiny comet-tails of the Asiatic transports.

Suddenly Graham's signal-light flashed. Far across the midnight of space Harry saw a cluster of tiny flames—the transports!

"Hurry-there they are!" he cried, feverish with the

excitement of this strange warfare.

"No hurry," laughed Graham. "We work closer than this. He's giving me the current to warn me. He's evidently going to cut behind them. That pilot's an old hand at dodging in among tail-flames."

Harry could not restrain in his impatience. In a few minutes the rockets themselves were visible in the deep dark of space, little bullet-masses at the narrow end of the flame—eight of them. Soon the Spit-Fire was close upon one, and Graham began circling his ray.

"Got him!" he shouted, as the enemy transport hurled a bursting red flare behind it and then faded into the deep eternal blackness. "He'll drift there for a while, I guess. It will be pretty hard on the crew when their rations give out!"

Harry rubbed the after-image from his eyes. Finally he was able to see the flash of sunlight in the crippled hulk of the transport, slowly tumbling over and over in space—drifting—dead.

"Just what happens to the men in a crippled rocket?"

"That," said Graham, "is a story no one has ever returned to tell. I suspect they go insane—or worse!"

Just then the floor Jurched beneath them. Searing yellow flames hissed by the window, blurring it with momentary moisture. They had just missed the tail of another transport. Graham was busy with his ray, trying to spiral it on the demon they had just passed. Harry saw a green finger of phosphorescence dart out from the enemy rocket, slowly encircling him with its deadly stream. Then as the Spit-Fire rolled over on its side, Graham's signal light went out. The Therin-ray was being emanated from another gun.

They waited, two mortal creatures in a narrow room, praying that the other American gunner might win his grim duel. The cramped Emanator-chamber was not much more spacious than a coffin. If he had to be buried alive, Harry preferred it not to be here in the inter-planetary emptiness. They could see the rest of the transport fleet now, edging away from them and their single combatant.

"The cowards," sneered Harry.

"Not at all," countered Graham. "If they brought in their own rays, they would only short-circuit the transport.—But look! There comes a rocket that's not a lumbering old metal-barge! It's the *Dragoness*—I know here lives!"

Headed directly for them was the Asiatic dreadnought, its ray gleaming like a slowly-turning green eye in its very tip.

"Why doesn't Kane send you the power!" implored Harry, tense with the excitement of doing nothing.

"The Dragoness won't attack until the transport has fought it out. But you'd better duck back to the pilotroom now."

Harry found Admiral Kane, his jaw set and his face stern, scanning the *Dragoness* with his electro-telescope. She was perhaps thirty miles off, coming straight for the Spit-Fire, so that the flame of her tail showed like the sun's corona around the narrow circle of her hull. At the other port-hole, Harry could see the transport, a quarter-mile away.

She appeared to roll towards him, but was really steady in her flight as the Spit-Fire cut across her top. Thus Kane forced her to open fire with another raygun; the new gunner would have to start spiralling the Spit-Fire all over again.

"Right across her," muttered Kane. "Turn off the primary power and switch in the secondary current. We'll 'spark' her, and get out of this,"*

The pilot pulled the levers. The Spit-Fire her power cut off, hurtled through space, right across the transport's nose. Then the pilot gave the Emanators current from the secondary batteries.

A ribbon of whitish light leaped between the duelling rockets. It flickered for a moment between the Spit-Fire's right gun and the transport's top gun, only two hundred yards away. Then it broke with a crackling sound in the interior of the rockets. The pilot room was left in darkness. The Emanators had short-circuited each other through the vacuum. The Spit-Fire's secondary batteries were out of commission.

"She sparked, all right!"

"That's why only one ray-gun can be used at a time," barked Admiral Kane, as he switched on the primary current. The Spit-Fire leaped ahead.

"Roll her over to the left!"

The right-hand explosion chamber spewed flame at the transport beneath, as the Spit-Fire twisted in its flight. Kane gave the current to the left gunner. The blue flash of a short-circuit illumined the pilot-house windows of the transport. Its come tail died away in wisps of flame. Its machinery was crippled. The transport tumbled behind them, extinct in the eternity of space. Harry breathed a sigh of relief.

Admiral Kane did not share Harry's elation.

"The Dragoness!" he gasped. "She's right in back of us—not a mile off!"

"Shall I dive?" plead the pilot.

"Not a chance. She's got us funneled. We'd kill the Spit-Fire. Straight ahead."

Kane bent over the switch-board and turned off all the current. The pilot-room was in total darkness, save for the stream of bright sunshine that poured through one port-hole.

"There! She won't short-circuit us, anyway. At least we won't starve to death," Kane added grimly.

"You mean we surrender?"

"Nothing else to do. If it were a hand-to-hand struggle it would be different, but when men make war with
machines, a good commander must know when his machinery is overpowered. In two minutes we shall be
gripped fast in the big magnets on the keel of the Dragoness. These movable magnets will manipulate the helpless Spit-Fire until an air-lock is located between them.
One minute after that, a thick, soft-rubber suction-cup,
between the magnets, will have sucked tight to our hull,
over the Spit-Fire's air-lock, forming a temporary suction-lock between the two rockets. We shall march into
"Two Then's Emmanters "payers" or short-feeting each other. This distance is
voltage of the Emmanters created, as it is a Function of the mean
voltage of the Emmanters created.

the Dragoness prisoners of war. It's the best we can

The rocket was jerked from under their feet. Through the port-hole Harry saw the looming black hulk of the Dragoness; the electro-magnets had seized them fast in

the relentless clutches of Asia. "But don't we put up a fight?" expostulated Harry,

from the floor where he had been thrown, "Resistance wouldn't do us much good. We'd be dropped loose with a time-bomb fastened to our hull, and be blown out of nothing into nothing."

THE ten men of the Spit-Fire were manacled and lined up in the barracks of the Dragoness. Commander Chang surveyed them with slit-eyes.

"Remove the Admiral and the boy and confine them in irons. They possess knowledge which is valuable to us in our profession-which, gentlemen, I must remind you, is war-war to the death. Send the rest of the crew back into the Spit-Fire."

"But Commander," protested Admiral Kane, stepping forward, "these men are prisoners of war."

The thin straight lips of Commander Chang did not move. Kane and Harry were seized from behind and dragged away.

"So long, matey," cried Graham, as he and the rest of the crew were bound with ropes and carried off.

Harry was dizzy. His consciousness flickered as he gazed out the port-hole of the narrow bunk in which he had been locked. Dwindling into the space behind the Dragoness was the Spit-Fire, sunlight flaming on her hull. Then there was a red flare where the rocket had been a moment before. Darkness and eternal cold had swallowed up the ill-fated Spit-Fire. He turned away, his heart sickened with hatred of his captors.

The Dragoness, having convoyed the five remaining transports laden with the precious Lunite to within easy docking distance of Asia, put about for the moon. After dreary hours of loneliness, punctuated by three light meals of rice-cakes and chlee, Harry and Kane were hustled into space suits, preparatory to being taken to the lunar prison-house.

As Harry first set foot on the pale blue soil of the satellite, he turned to survey the Dragoness as she lay in dock, being overhauled. He could not restrain a thrill of admiration as he took in the neat lines of this armor-plated angel of destruction. But he was given no time to stare; the guards jostled him along towards a low, box-like structure, which he rightly conjectured, was the prison. He stumbled at first, as he had sometimes stumbled at the top of a stair-case, expecting to find one more step, but he soon learned to adjust his movements to the lesser gravity of the moon, and he took pleasure in stretching his legs after his close confinement in the prison-bunk of the Dragoness.

He and Kane were ushered into the air-lock of the prison, a steel-framed building about twenty yards square, and deprived of their space suits. Something in the tone of the Commander Chang as he gave instructions to the Jap warden for the care of the prisoners caused Kane to turn to Harry with a drawn smile,

"Sorry it turned out this way, old man. Take care of Tharia. Harry's throat clogged up as he clasped Kane's hand.

"Between the two of us, we'll take care of Tharia," he blurted.

Kane slipped him a thin bundle of papers, clipped together and fastened with a rubber band.

'Notes for the War Office. I made a duplicate set-in case only one of us returns."

One of the two guards shoved Kane through a narrow doorway.

"We grow lazy for lack of inmates," laughed Kane's guard to Harry's in the stilted colorless phraseology of the theoretical language, Esperanto. Ku Sing, Harry's guard, replied with a grunt. Harry tried to toss one last word of reassurance to the Admiral, but he had been rudely flung into his lunar dungeon. Ku Sing was more considerate.

"Here is your habitation," he drawled, thrusting Harry into a wretched low room ten yards farther down the corridor. Harry, exhausted by the thin fare of rice-cakes, was sent sprawling to the rickety bench in the far corner.

With a sallow grin, Ku Sing inserted his electro-key into the wall-socket, and snapped a switch in his jacket pocket. Immediately a thin line of glowing flames encircled the doorway.

"You are advised not to attempt to pass through this door-or if you must make the attempt, let it be one finger at a time. That will instruct you in the sureness of your incarceration." Ku Sing was gone.

Harry sprang to his feet, eager to examine his prison. There were three openings cut in the walls: a little square window, the door, and a tiny window into the corridor. In each side of the door and the inner window were narrow vertical grooves, where a dim purple glow sputtered softly, as though waiting to spring upon its prey. Harry, remembering the guard's warning moved his finger directly through the centre of the doorway. No sooner had the flesh passed to a point immediately between the fiery cracks than crackling needle-points of electricity leaped out from either side, piercing him with pain to the bone.

The doorway was as impassable as if it had been barred with triple steel. Indeed, Ku Sing assured him later, as he passed rice-cakes and chlee through the little window, of which the current was temporarily turned off. any vital organ of the human body exposed to that deadly gauntlet would shrivel up in instantaneous paralysis.

The third opening, the exterior window, was made of one-quarter inch vitrite, to withstand the tremendous atmospheric pressure maintained in the prison. The walls were of a fibroid composition, like beaver board to the touch, and the outer wall was lined with a tough papery substance, held in place by the air-pressure. Harry was searching it with his fingers to detect any cracks in the supporting wall frame, when he realized that even if he were able to puncture the lining of his cell he would only commit suicide by the most horrible method conceivable. Exposed to the hideous sucking of the invisible vacuum, his skin, stretched taut would ooze blood and lymph at every pore. If that were to be his fate, it would come soon enough. He sank to his bench in despair.

HOURS later, he aroused himself to gulp down the paltry food brought by Ku Sing, and pumped the sullen guard for all the available information about the moon and the purpose of his captors,

But Ku Sing had little to say on those subjects. "You are detained by orders of the estimable Commodore Chang. He opines that you have valuable scientific secrets in your head-piece."

"Well why in thunder didn't he ask us about those

scientific secrets? There was plenty of time."

"Oh, of time there is yet amplitude. And everything will be more convenient for the estimable Commodore in the questioning-room. Prisoners answer questions more readily there."

"Sure," fenced Harry, in mock submission, "and why not answer questions?"

Ku Sing explained, with the fiendish coldness of his race, that Americans were frequently stubborn; their memories were stimulated by exposing their hands or the soles of their feet to the low pressure of the lunar atmosphere.

"In appearance the instrument is of simplicity. A flexible tube, leading from the questioning-chair to the wall. It functions efficiently, however."

wall. It functions efficiently, however."
"Don't they know better than to resist mighty men

like you?" asked Harry, in feigned docility.
"Men like Commodore Chang are devils!" spat Ku

"Men like Commodore Chang are devils!" spat Ku Sing, losing his habitual torpor. "And the warden is another Japanese beast of hell!"

Harry was all ears, but Ku Sing's wrath subsided like molten metal drenched with water. It was time for the second shift to take over the prison; Ku Sing was returning to the main city.

"What time is it?"

The guard glanced at his wrist. "8:20 P. M., Asiatic standard. We use earth-time here, as a 330-hour day is overlong for convenience. In Moon-time it lacks 40 hours of sundown. The estimable rat Chang will be back from the fatherland about a week after nightfall."

The oriental's sinister face disappeared from the window; an instant later the double-row of purple flame was sputtering in the grooves,. The guard's footsteps died away along the corridor, and Harry was utterly

isolated in a hostile universe.

From his window, Harry could see the moon-city, vividly blocked out in brilliant sunlight and impenetrable shadow. It was a cluster of domed, box-like units, clamped to the loose lunar soil. Here and there in the steel-frame wall, sectioned in composition-board and lined with the tough papery substance, were air-lock units, imported complete from an Asiatic factory. From the other end of the building came the low, dismal throbbing of the atmosphere-producing machinery. Beyond the black and white city stretched dreary meadows of lunar vegetation-Harry had seen specimens in the St. Louis museum, thousands of miles away-pale, pulpy, fungus stuff, loose-rooted, admirably adapted to survival in the thin lunar atmosphere by its soft, slimy, multi-folded leaf surfaces. Whole little valleys overflowed with the dense growth, and the man who made the mistake of walking in it found himself sinking beyond his depth in the suffocating moss-like foliage, as in a living quicksand. Harry's gaze wandered for miles through the clear air of the moon, to the jagged silhouette of the moon-mountains, like encircling teeth all about the horizon. Nature, on earth so kindly was armed against him. Heartsick longing overcame him; he thought of Tharia, of St. Louis, of Admiral Kane, of Commodore Chang, of the murdered crew of the SpitFire, of Tharia, of Jim Borden, the mechanic, back in the 1950's, of the blue Pacific, but most of all, of Tharia. Maddened by his enforced inactivity, he paced his cell like a caged tiger, until exhaustion overcame him, and he sank into a fevered sleep upon the hard board bench.

CHAPTER V

The Happy Accident

ESS than a mile away, in an improvised laboratory in the lunar city, Luke Raleigh pounded angrily with his fist upon the table. The little Swede was boiling with chagrin.

"Women and children of your own race—starving in your filthy crowded streets—saved from a foul death if

you wish it-and you prefer to make war!"

The officer across the table was unmoved; within his thin, slant eyes burned a cold fire; his lips curled in scorn. "Let me remind you that those women and children are not of my race. They are Chinese scum—a million more or less makes no difference to me a Japanese, and a member of the Inner Imperial Council. Asia, in our control, must control the world. You are to be congratulated upon your scientific acumen in discovering that moon-moss can be used in combatting the diseased vegetation of Asian plains and in restoring them to fertility.

"But mixed with the scientist in you is, I perceive, a slushy, sentimental, American humanitarianism, which is unbecoming to you as a scientific thinker. Since you have a sentimental interest in those thousands of women and children, I can assure you that when the Earth has been conquered for Asia, we may turn over our factories to the manufacture of the machines which you claim are necessary to a land-reclamation project. But as for your proposal that Asia, in return for your discovery, make a peace treaty—that is absurd."

Luke was on his feet, his lips clogged with bitter words

too tumultuous for utterance.

"But why fight? Why murder a thousand more of your countrymen, before salvaging your home-land?"
"You had better replace that beaker! Don't let your sentimental impetuousness impel you to a rash gesture. Remember that kuchin-coated slugs are deadly."

Luke dropped back into his chair, baffled by oriental treachery.

"In truth, I cannot understand your disappointment. You are enlisted as a scientist in the service of the Empire—more strictly speaking, of the Japanese controlling board of the Empire. You are one of us, fighting with us against the common enemy, for your own life. What led you to suppose that in turn for your services we would abandon our plans of crushing the world under our heel?"

"Because I was brought up with some sense of decency and honor, in a land where human life counts for something, you pig!"

"Decency-honor-what pretty words they are."

The officer was on his feet, turning to go. He addressed the soldiers at the door. "You will guard this man carefully for the next few days. He is to return to Peking with Commodore Po on the Lunite-clad rocket, the Nebula. And as for you, my soft hearted fellow, I suggest that you clear your mind of sentimental weeping

over peasant women, and take a practical view of affairs.

It may be better for you.

Harry, too, heard, like the ominous rumble of far-off thunder, echoes of the brutality of the Japanese Inner Council. As Ku Sing paused in the corridor to exchange a few words with him after bringing him food, the oriental's sallow face, framed in the window like that of a disembodied ghost, twitched and snarled, baring rotted yellow teeth, in hatred of the Japanese dictaorship, Ku Sing had belonged to the Chinese Peasant Labor Party, now clamoring back home for peaceful capitulation with the American world. Harry eager for information, heaped fuel on the flame of his resentment., But Ku Sing would not be drawn out.

"Ah, the militaristic swine,—like a maddened boar, thirsty for blood. And proud as peacocks—the warden

-some day he will go too far."

And with the grimace of a cornered weasel, Ku Sing would disappear from the window, to don his spacesuit and return to the main city. The next day the warden, a haughty little Jap, was making his inspection of the corridor as Ku Sing spoke to Harry. Vain of his own power he found an excuse to reprimand the guard.

"What are you doing with your space-suit? It lacks

five minutes of leaving-time."

Ku Sing was not to be bullied. "The other guard has already left. Because he is a Jap you say nothing to him. And you have your own suit on."

"Stop arguing! Go back to the locker room!" The Jap, whom Harry could see through the doorway, stamped his foot petulantly, grotesque in his rage. Would there be a scrap? A wave of disappointment engulfed Harry as Ku Sing mutely turned to leave. There must be a scrap!

"Chinese pig!" A bit of glowing metal stung the guard in the back of the neck. Harry had improvised a sling shot of the rubber band and a paper-clip. As he released his missile he felt strangely like a mischievous school-boy. In a second, Ku Sing, like a volcano bursting with the pentup rage of years turned upon the warden, lunging with clenched fist and bared fangs. The Jap, taken off his guard, stepped backwards, into the doorway-and fired from the hip. Crack-smack-the shot and Ku Sing's blow to the jaw were simultaneous. The Jap was knocked into the cell-a halo of needle darts sprang from the electric barricade and played around his body. His face, twisted in a horrible grimace of pain, teeth gnashing and eyes dilated, stared up from the floor at Harry, like an animated mask.

Little pirouetting streams of smoke trickled up from his burning space-suit, as the ring of electricity ate deeper and deeper—into the skin—into the flesh. The face was motionless now—with eyeballs hideously staring; the warden was dead.

Still the darting lances of fire played about the body and then suddenly ceased. The controls were set for a period of time long enough to kill a man; then the current stopped automatically. When the smoke from the burning cloth cleared away, Harry saw tumbled in the dim corridor, the limp body of Ku Sing, a bullet through his forehead. A thin rivulet of blood trickled fantastically across his glassy eye. Beside him lay the bent paper-clip, and farther down the corridor, all in a heap, lay the space suit. HARRY could not bring himself to touch the Jap, as iskly horror clutched at his throat as he extricated the pistol from the death-grip of those claw-like fingers. The burned space-suit was worthless,—too small anyway. But the guard's space suit fitted him, and Harry was soon in it.

What was shown him.
What was the best plan? Should he wait until the
three second-shift men had removed their space suits,
and then try to break the window? He could hear their
laughter in the locker room now. But he needed another
suit for Kane. Fumbling in the dead guard's pockets,
he found the eléctric-key and the portable battery, and
switched off the current that barricaded Kane in his cell.
There was no window here, but he could dimly dis-

tinguish the man's figure, hunched up on the bench.
"Here is the empty bottle. And for God's sake might

I have a few more rice-cakes?" The voice was broken, pathetic in its whipped despair; for lack of a little sunlight, men have gone mad.

"Sb-Kane—it's Harry. You heard the row? It has given us a chance.—Here, help me drag this body here out of the way.—Now wait for me, while I go after a space suit for you. When I bring it, snap into it as quickly as you can." He was gone.

Closing the visor of the head-piece, he sauntered into the locker-room, just as the three night guards were putting away their space suits. He replied to their

greetings with a curt "Hello!"

"The warden's rather late today—where is he?"
"Coming." Harry was monosyllabic, lest his voice
betray him. Steeling his nerve, he walked leisurely over
to a bench, picked up a space-suit that had just been
flung there, and walked back to the corridor.

"Fellow! Where are you going with that suit?"
"Only a little experiment," parried Harry, over his

shoulder.

"Well, experiment with your own suit, and bring mine back here!"

But Harry was out of the locker room now, and speeding down the corridor as fast as his cramped legs could carry him. The hunt was up.

He paused at the door of Kane's cell, to toss in the suit; as he turned he took aim at the figures outlined against the bright doorway of the locker-room. The trigger snapped—the pistol was empty. He crouched and made a dash for his own cell, as bullets carround down the corridor after him. Leaping on the bench he hammered at the window with the but of the pistol. The blows were mingled with the reverberations of his pursuers' guns—and with another sound, like music to his waiting ears, the tinkle of broken glass!

His suit stretched out from his body; his ears sang, even within the space-suit; a rush of air pinned him to the wall, as the life-giving atmospheric pressure was sucked away through the broken window into the pit of night. A bullet struck the wall over his head; his pursuer, gasping for breath, collapsed in the doorway, flung forwards over the dead Jap. Harry crouched a minute trying to get his breath. There was no sound. The guards were dead. He did not care to examine the bodies closely.

What had happened to Kane? In the next cell Harry found a body crumpled up on the bench—its face and chest torn by bullet wounds.

"Harry-I need air."

The voice came from a corner behind him. The bullet-riddled torso was that of Ku Sing. Admiral Kane lay on the floor; Harry lifted him to his feet. The space-suit was correctly adjusted—then Harry remembered! The portable oxygen-container! The one in the shoulder-pocket of Kane's suit was nearly exhausted. In the locker room he found a supply chest, and soon Kane was breathing easily and eager to explore the prison.

The other two cells were empty. In the supply closet were pistols, ammunition, and a week's rations of rice-cakes. Harry and Admiral Kane filled their stomachs for the first time in days. By means of a flash-light they examined their space suits, and discovered that they were wearing the simple insignia I. A. W.—Imperial Asiatic Warrior. They dared not leave the prison yet, for a glowing sliver of sun still cast a deadly brightness over the plains. The prison break would not be discovered for another eight hours,—but by that time their oxygen would have long been exhausted anyway. Harry wanted to try getting into the main city, but Kane pointed out to him that the removal of their space suits meant discovery and certain death.

At last they passed through the empty air-lock, useless now that the prison-shell lad been burst like a bubble. The last ray of sunlight withdrew into the jagged mountain clefts; from the opposite horizon, darkness leaped up the sky like a black panther. They were suddenly cold. Space was like icy ink. Around the shark-toothed horizon, the lunar peaks fikekered ghastly green with St. Elmo's fire. Serenely remote, the Earth, three-quarters full, hung down the sky, casting a pale light upon the moon-city. They were alone, on the barren surface of a barren planet, outlaws. In the city were hunan beings—but both Kane and Harry preferred the impersonal cruelty of Nature to the calculated fiendsishness of the Japanese governor there.

Around them, swathed in night's black velvet, lay a treacherous countryside; abysmal crevasses—pits filled with rank, stifling lunar vegetation, lurked in wait for unsuspecting footsteps. And at the bottom of their oxygeneontainers, like a cobra coiled to spring, waited suffocation, in five brief hours to take the lives of his victims.

SUDDENLY towers of light shot into the sky—a cluster of vertical searchlights to the right of the moon-city. A group of illuminated stalactites was not more beautiful; they faded the stars. The Space Port!

Harry and Kane were tautly alert with excitement. What was up? Were these merely signal beacons, or was a rocket to set off for the Earth? As they cautiously crept towards the road, Kane's expert eye made out the tapering vertical lines of the Rocket Towers. Three of the towers contained rockets—and one of them was illuminated! They told each other not to be too hopeful. A number of people were hurrying along the road

from the city to the space-port.
"We may as well chance it." Harry was quivering

with emotion. "To stay back there is like waiting for death. I can talk the lingo—you keep quiet."

When there was a little break in the crowd, they can be read and waited

When there was a little break in the crowd, they clambered over the wire fence to the road, and waited for some other persons to catch up with them. Their hearts thumped nervously under their uniforms of Imperial Asiatic Warriors. Resolutely Harry forced himself to greet another soldier.

"Hello, also." The soldier addressed proved loquacious as they proceeded together down the road. "Gratifying good fortune, I so describe it, is our opportunity to travel in the first Lumite-clad dreadnought."

"Indeed, I cherish the occasion," replied Harry, who was catching on to the artificial idiom of Esperanto.

"I had a brother deceased in one of the steel-elad war-rockets. But this Lunite ship will glide into proximity of those annoying American gunners with impunity. Then we short-circuit them into annihilation. They are predestined to failure!" He spoke with enthusiasm, despite the stiltedness of his language, and Harry agreed, with equal fervor.

"But I have remarked, comrade, your words have accent of strangeness. Where are you from?" "Undertake to guess," countered Harry, as his stomach

"Undertake to guess," countered Harry, as his stomach turned over.

"You sound like them of South China. I am from the northern district myself."

"Correct the first time! And would I not like to be in South China this very instant," added Harry truthfully. "My companion is also from South China—he speaks only the old dialect."

"Well, we shall soon be in the homeland. Here is the entrance gate." He turned to the guard at the gate. "Third Division, First Regiment, Space Infantry, reporting to Commodore Po—all three of us. Come along, comrades," he added to Harry and Kane, "the Nebula wavits in Tower No. 5."

Together with a group of other men, wearing the I. A. W. uniform, Harry and Kane climbed up to the embarking platform; they filed through the narrow airlock into the dreadnought.

Harry turned to speak to Kane, but he could not distinguish him among the other soldiers-a false word was fatal. What would he do when they received the order to remove space-suits? Was it true that military offenders were dropped loose to perish in space? He tried to think of Tharia in his last minutes. At least, she would never know exactly what had happened to him. Then the captain, neatly uniformed, ordered the men into a barracks-room in the lower or rear part of the ship, and told them to find bunks and prepare for inspection. They were not to get out of their spacesuits until the pumps had finished bringing the atmospheric pressure of the rocket up to normal. Harry was just catching on to the routine when the captain reappeared. He spoke in the sharp staccato tones of the 21st century Japanese:

"This company is transferred from Barracks B to Barracks A, across the passage-way. Being located on the solar side of the rocket, that room will be less cold than this. Of bunks there is amplitude for each of you; they must serve for storage and for sleeping also."

The soldiers picked themselves bunks, Harry selecting one in a corner. He sat on the edge, rolled back, drew the curtains, and loosened his space-suit just enough to get some fresh air. Outside the curtains he heard the soldiers chatting merrily among themselves, mostly about the Nebula's Lunite hull, impervious to the Therin rays of the dreaded American marksmen. There was bickering and laughter, and a game of dice just outside his bunk, then a brief pause for roll-call. "Private Kung Lee!-Private Kung Lee fails to re-

"Well," thought Harry, "I guess I'm Private Kung Lee, and I guess I've been taking a nap." And with that he rolled over and was soon so sound asleep that he did not feel the Nebula leap earthwards.

Harry opened his eyes and yawned. "Oh hum—another day, another dollar. I'll get down to the laboratory
early and see what Luke's been doing with the gyro.
Gosh, my neck's stiff and my legs are heavy—I must
have been having bad dreams. Come to think of it, I
did have bad dreams." His outstretched arms struck
the steel end of his bunk. "By golly, I am having bad
dreams!"

A staccato voice was shouting in Esperanto: "This company will don space suits in haste! An American cruiser has been sighted, and the necessity for boarding her may arise!"

"Why can't they talk to the point," mused Harry, as he fastened his space-suit, sprang from his bunk, and lined up with the others to have a fresh oxygen container fitted into his shoulder pocket.

CHAPTER VI

In Control

AFELY masked once more, he slunk unobtrusively from the barracks to the corridor, intent on learning all he could about the lay-out of the rocket under cover of his temporary disguise. Perhaps he could find a safer place to stow himself away—though he doubted it, knowing the rigorous economy of space necessary in rocket designing. He made his way cautiously along the cork-lipied corridor, one hand ever at his holster. He paused at the runways leading, he supposed, to the Therin-ray Chambers, but thinking twice, continued forward to the pilot room. The door was closed, but Harry turned the knob with his free hand and opened it a tiny crack.

Commodore Po, a stubby, oily Jap, was blustering about like an excited sow. The pilot, only half visible through the narrow slit, crouched over the control panel.

"Gilde directly up to her," sputtered the Commodore.
"We'll make a capture. She's only a small vessel, but
we'll salvage the hull. Our engineers make no rockets
so swift on the turn as those American devils. We'll
get the hull, but I'm a dog if we take a prisoner!"

He seized the hand phone impetuously and fumbled at the switch-box.

"Captain Lu! Captain Lu! What swine-demon has possessed the Captain!"

The Commodore, a spoiled scion of Japanese nobility, expected his subordinates to be waiting obsequiously on his every whim. He shouted again. Suddenly the rocket lurched in turning; the fat-bellied Commodore was thrown off his balance. The pilot-room door eluded Harry's nervous grasp and swung wide open, revealing him in the doorway.

Harry had seen the Asiatic soldiers salute; he raised the fingers of his hand to his ear in clumsy imitation, and quickly brought his hand to within reach of his pistol.

"What swine-demon brought you here?"

Harry, setting his jaw and staring through his visor directly into the Commodore's fishy eye, made no answer. "Return to your barracks at once and inform the Captain Lu that we are boarding—boarding and exterminating. He is to take no prisoners. Do you understand!"

Harry nodded and turned on his heel. A moment later the oily cackle of Commodore Po, followed by the gloating shouts from the soldiers in their barracks informed him that the plucky little American cruiser, shooting close to the Lunite-clad Asiatic rocket, had been short-circuited. The Nebula swung through a wide circle of space like a giant hawk, to pick up her prey in magnetic talons.

Harry singled out Captain Lu, who had been watching the one-sided duel from a port-hole, and reported to him: "Commodore Po orders Captain Lu to board the American and to take all prisoners."

"What! Take prisoners? We never take prisoners!"
He strode to the telephone to verify the order.

"The estimable Commodore is not in a mood for disputation," gasped Harry, his heart in his mouth.

Captain Lu was evidently acquainted with the Commodore's temper. He dropped the receiver to its hook. "Very well. We'll imprison them in the barracks-room across the corridor. All men down to the suction lock! Fire if necessary. Bring them back alive, and enclose them in Barracks B!"

Harry was among the foremost of the party of soldiers that filed into the depths of the rocket to wait at the steel door of the suction-lock. The Nebula, massive as it was, jerked in its flight, throwing the men against one another. The American cruiser had been captured, clamped tight in the powerful electro-magnet.

A succession of jarring tremors shook the two rockets as the huge movable magnets released and re-established their hold, turning the American about in their clutches, until one of the cruiser's air-locks was in the proper position. Then the crew of the Nebula opened the steel door into the suction-lock. A circular section of the American's burnished hull was framed in a heavy ring of spongy rubber, pressure-clamped to the captive's side; this was the temporary air-lock through which the prisoners were to be conveyed into the Nebula. In the pilot room, Commodore Po, with orthodox oriental treachery, was dictating his terms via wireless to the American commander. "Open your air-lock peaceably to my men and you will be treated as hostages of war. Otherwise you will be cast off in space with a time bomb affixed to your hull,"

"Be ready to fire if necessary," Captain Lu warned his men, as the Americans, making the best of their fate, opened the air lock.

"Surrender and be taken alive, or we cast you off!" shouted Captain Lu.

"Very well, here we come! Thunder and fish-hooks! What's the hurry!" replied a familiar voice.

It was Mitchell! Harry sprang forward and seized him roughly by the arm. "Thunder and fish-hooks yourself," he santeld. "Come along with us and be quick about it!" And then in a lower tone, he added: "Mitchell —it's Harry Halsted. You're in a tight jam, but keep your eyes open."

"All right, I'm coming," cried Mitchell, pretending to struggle with his captor. "What a start you gave me," he whispered, as they returned through the suction lock. "But you're just the man she's been looking for—you and her father." "Whose father?"

"Careful!-not so loud!-Miss Kane's, of course."

"Not Tharia! among these beasts?"

Kane nodded. Like an aroused panther he left Mitchell, darted back into the cruiser-he must find Tharia! What was she doing here? This was no place for a

THEN he saw her. She was the last to leave the captured rocket. Across her breast were the three captured rocket. Across her breast were the three gold stripes of the Rocket Commander! He had known that she understood rockets, but he had never suspected that she dared assume complete control in the boundless depths of space. And how well she wore her command! Even in his excitement he felt a gush of admiration and . pride in her, as she held herself superbly erect, communicating with Captain Lu. Her delicious black curls were concealed by the trim leather helmet she wore; her dark eves flashed fire; her finely chiselled features betrayed no womanly emotion; she appeared totally unaware of the two guards whose yellow paws clutched her wrists.

If only Harry could get a word to her,-but no, the other two soldiers were too close. Darting behind her he placed a firm hand upon her shoulder, as though she were a dangerous prisoner. Although she must have

felt the indignity deeply, she never winced.

The prisoners were marched into the room across the corridor from the present barracks,--all except the Commander, who was taken by her three guards forward to the pilot room. Harry tried to edge out one of the other soldiers and so get next to Tharia, but not recognizing him in his space suit, she ignored the discourteous shoving of her attendants.

"Cursed be those fools!" Commodore Po was fuming. "I told them not to take prisoners. Someone must atone for this. Well, let me survey the Commander."

Tharia stood in the middle of the pilot-room, her chin high, her gaze steady. On either side stood an

Asiatic soldier; behind her stood Harry. Po snatched off the girl's helmet with a coarse laugh, as her black curls came tumbling down over her shoulders Harry dug his nails into the palms of his handssteady now! A false step would send them to destruc-

tion. Tharia and all.

"Oh, so we have here a female rocket-skipper. Well prisoners are not so obnoxious after all. Perhaps we had better examine the crew to see whether there are any more such succulent morsels among them. But one female will suffice me until we get back to Asia. I shall try to make you comfortable, sweet little lady."

The lecherous Po rolled his pig's eyes up and down her trim person, neatly encased in the American uniform. Harry, tense-nerved, was listening for the sound of Tharia's voice, but she disdained to speak. Only her lips moved softly, as though repeating a name over and over; she blinked her eyes; then once again her mouth was set in grim impassivity.

Po turned to the guards. "Get back to your kennel now. I can handle this frail person without your assist-

With an envious, knowing leer, the two soldiers turned and disappeared into the corridor. Harry did not budge. The Commodore stared at him in exasperation-then the ship's phone rang and he snatched up the receiver.

"Captain Lu?" he bellowed. "Is everything satisfac-

tory? You may detain the prisoners for an interesting little inspection that is to be made shortly in the interests of the crew." His voice took on its oilier inflection. "All prisoners in Barracks B? Very well; I'll lock the door from the central control,"

Po clanked down the receiver and turned to the orderly. "Lock the prison-room door. No, pig! not that second button," he shouted in a rage, "that's the door to the Barracks A. The soldiers were transferred over there. The prisoners are in Barracks B, button three." Harry pricked up his ears. This was news.

Commodore Po addressed the pilot, "Exert all the speed the explosion chambers will bear. Shall we ar-

rive at Pekin on schedule?" "I think so, sir."

"Excellent. You know we have an important political prisoner on board who is wanted for cross-examination by the Inner Council."

Again Po confronted Harry. "Now what are you doing here?"

Harry thought quickly. "I am reporting from Captain Lu.'

"Did I ask him for a report? . . . Well, what is it?

Any casualties?" "No sir. The Americans were thoroughly frightened."

"Mmm . . . women" Americans were not usually cowed so easily. Po's fat eye winked in anticipation of an orgy. "Good! Tell Captain Lu to get his men out of their space suits and lined up for a thorough physical examination!" 'Sorry, sir, but there is a further message for you-

a message of a peculiarly intimate nature. Perhaps you had better send your commands by him." Harry nodded towards the orderly.

THE insinuation was successful. Commodore Po's lust was aroused. The orderly shuffled down the passageway. Harry closed the door after him.

"My message," he began, confidentially leaning his head towards the Commodore's attentive ear, and opening the visor of his space-suit helmet, "has to do with this young female creature."

"Let me hear it," gloated Po, licking his lips, Smack!!

"You're to leave her alone!" shouted Harry, eager to be using his fists again. But Commodore Po never heard the message. His fat carcass tumbled to the floor, where it sprawled in a heap. The pilot, startled by the impact of Harry's gloved fist, was the next to crumple up. "Tharia! Take control of the rocket."

Tharia was bewildered by the sudden liveliness of the figure whom she had regarded as an especially detestable oriental. But quick to action she ran to the control panel.

"It's Harry! Now buck up, while we make a struggle for life."

He opened the door cautiously, and stepped into the corridor. The orderly was making his way leisurely towards the barracks. As his hunched figure passed through the doorway of Barracks A, Harry darted back to the row of central control buttons, pressed button two and released button three. The soldiers were now the prisoners! Pulling off his space-suit as he ran. Harry dashed down the corridor to meet Mitchell and the American in Barracks B.

He despatched Mitchell and the pilot of the American cruiser Fire-fly to relieve Tharia at the control-panel, with strict orders to guard the lock-buttons with their lives. For the company of infuriated Asiatics now clamoring at the steel door of Barracks A outnumbered the Americans two to one; if they got free a general massacre was certain. Harry was fighting for life more desperately than ever, now that Tharia was under his protection. Detachments were sent to overpower the oriental gunners in the Therin-Chambers, and a squad under Harry's direction went after the engineers in charge of the explosion-rooms. Five minutes later he was back in the pilot house, temporarily master of the ship.

Tharia, once released from the duty of controlling the Nebula, had burst into tears. Now she sat in a wicker chair, sobbing into a dainty lace handkerchief. Harry comforted her as best he could, inexperienced as he was in such matters. At last her tears, the result of the sudden let-up of emotional tension, subsided, and she

rested easily in his arms.

"Here," said Harry, hoping to steady her nerves by concentrating her attention upon some simple duty, "I want you to search through the ship's record, and also through the memoranda of its radio communications with Pekin, to see if you can discover any information about an American political prisoner supposed to be on

Tharia attended to, he left the pilot room. Two serious tasks confronted him. He must scour the Nebula thoroughly for any lurking oriental who might cause a disturbance, ruining all his plans. And he must somehow find Admiral Kane. The thought had been gnawing at his mind. If Kane were in Barracks A, he might lie hidden for a short while in a bunk. But if he were discovered-Harry shuddered. One thing, then, must be done-and a ticklish business it was. The door of Barracks A would have to be opened, and the whole company of orientals marched one at a time into Barracks B. If he were not too late! He had not spoken to Tharia of her father. How could he tell her

Suddenly he ducked to the floor. At the far end of the corridor a crouching figure slunk back into shadow. Harry fired,-and ducked again, as a bullet came ricocheting back at him. Whoever it was, the fellow was

determined to sell his life dearly.

"Drop your pistol! Raise your hands well over your head, and walk slowly this way!" ordered Harry, aiming at the shadow where the figure had disappeared.

"Harry! -my boy, what a shot you are!"

It was Kane running with outstretched arms, "You nipped me once, across the shoulder. I thought I was a goner !"

Kane explained that he had secreted himself in the storage pantry, thinking, as Harry had thought, to operate more effectively as a stowaway than among the crowd of soldiers whose language he could not speak. Well, that was one nasty job off Harry's hands; now the Asiatics could stay cooped up in Barracks A until they got to St. Louis.

CHAPTER VII

How It Ended

N THE pilot room, Kane wrapped a handkerchief around his scratched shoulder, and was at once his own commanding self. He peered through the electric telescope and gave orders as if he were in his own rocket. Tharia could hardly restrain herself; again and again she clung about his neck, and covered his cheek, rough with an overgrowth of bristle, with affectionate kisses.

"Oh Dad! It's so good to see you. -I knew I'd

find you-you and Harry!"

But Harry was most astonished by what followed. "Now sit down there, little girl and rest up. I don't want to hear another word out of you for ten minutes. Whatever was your mother doing to let you come on a chase like yours! You ought to have known better."

And Tharia, still at heart just a little girl to her Dad, sat quiet as a mouse, with her black curls falling in shy

ringlets over her shoulders.

"But I must report to Harry-I mean Mr. Halsted -what I found among the papers."

"Harry-to you." He took the slip of yellow paper and scanned it intently. It was a leaf from the log of the Nebula.

. . . carrying thirty men under command of Captain Lu. Leaving Lunar Space-Fort, Tower 3, on schedule. Fuel for 80 hours. Crew of 12 men. One prisoner, American scientist, confined in compartment 19. '

Harry read no further. Dashing to the central lockcontrol board, he picked out the button labelled 19 and

released it. Could it be Luke?

Sure enough, a dreary-eved Luke Raleigh was found huddled in a tiny dungeon-hole to the rear of the supplyroom. As he extricated himself from Harry's embrace he pinched himself on both arms and shook his head. "I give up-which is the dream, this-or that other?"

In the pilot room, where he was introduced to Tharia and Admiral Kane, he sank into a cushioned chair and raised his emaciated hands in hysterical protest. simply can't meet my great grandchildren until I've had a bite to eat. But in the name of starving humanity, don't show me another rice-cake. I'm sick of cowfodder."

They managed to find more acceptable fare in the officer's pantry, and as Kane directed the Nebula back to the Earth, America, and St. Louis, with which radio communication had been set up, the tension was released. Soon they were chatting light-heartedly of their adventures.

They hardly interrupted their conversation when a lumbering Asiatic Lunite transport was reported, fifty miles away, and headed for China. Kane got the Asiatic commander on the radio and directed him to head about for Ameirca in the wake of the Nebula. The transport. defenceless against the Lunite-clad dreadnought, complied gratefully. No Japanese comander would have spared their lives. The Nebula slowed up to keep company with the trailing transport.

"I wonder," said Admiral Kane, "whether you realize just how much Harry Halsted's capture of the only Lunite-clad rocket in existence means to America."

Every face was attentive.

"We can set up an absolute blockade against Asiatic importations of Lunite, thus putting a complete stop to the present Asiatic building program. We can destroy the mining colony on the moon. By scrapping their present fleet of half-built rockettes, Asia can get together enough Lunite to make a few small flyers. will take at least a year. Within that time, their continual land-famine will have hit them harder than ever. Their Peasant Labor Party may overthow the Japanese dictatorship. And our own American scientists will have discovered a means to combat them. It looks as though we can dictate terms."

Spirits ran high. Luke still playfully feigned a disbelief in everything that had happened to him.

"Why, I shouldn't be surprised to find Jim Borden

waiting for me in St. Louis!"
"No. Luke. You won't ever see Jim again."

A reverent silence fell over the little company. Luke, grown suddenly serious, was pondering a deeper problem within his heart. The Japs had slain Jim Borden. And he had had a bitter lesson in the Japanese temperament. "Women and children," "decency and honor,"these were pretty words. Luke remembered the sneer on the treacherous lips of his Japanese captor. Now he had the secret of destroying the yellow rot. In a few years, the rot, left to follow the straightforward course of its own nature, would have removed this race from the face of the earth. Why should he interfere? Why not let nature take its course? Why not keep his secret? He thought of the anguished faces of Asiatic peasant women, pleading for bread for their babies. And he thought of the evil ever lurking within the Asiatic temperament, ever waiting to wreak its wrath upon a peaceful world. Should he tell? Or should he

keep his secret?

Three days later Admiral Kane stood in the council room at St. Louis, addressing a committee of government officers.

"The Peasant Labor Party, having successfully revolted against the Japanese dictatorship and having set
up the United Asiatic Republic, has begun its international affairs by a complete acceptance of our conditions.
The lunar colony is ceded to America. The Asiatic
Republic is to be completely disarmed. American engineers are to undertake, under the directions of Colonel
Luke Raleigh, the rehabilitation of their disease stricken
agricultural lands. Gentlemen, I congratulate you on
the drafting of a just and humane treaty of peace."

When the applause had subsided, Tharia was at her

father's elbow.

"Gee, Dad, I thought you'd never finish!"

Outside the window, factory whistles shrieked and church-bells pealed jubilantly. The populace had declared holiday and were making merry in the confettistrewn streets.

"Why Tharia, aren't you interested in your Dad's

career as an orator?"

"Yes,—of course,—but now that everybody seems so happy—"

"My dear girl—what is it?"

"Oh, nothing much, Dad, she stammered through her tears. "Only Harry has a rather important question he wants to ask you."

THE END

WONDER STORIES' New Dress

S PROMISED in our last issue, you now behold a new WONDER STORIES, and we are convinced that you will like its new dress.

Literally thousands of letters were received from enthusiastic readers during the month who expressed their gratification that the magazine was to go back to its bigger and more dignified size.

Hundreds of readers wrote in to query us about our promised surprises, but very few guessed what they were all about. Well here they are:

PAUL'S DRAWINGS EXCLUSIVELY

Beginning with this issue, in conformity with the wishes of the majority of our readers, Paul will illustrate the magazine exclusively. His work has been considered of such importance, that Mr. Paul has also been appointed Art Director of the newer and greater EVERYDAY SCIENCE AND MECHANICS, a sister magazine to WONDER STORIES, where Paul has dozens of marvelous new drawings depicting science and mechanics as they are today. We are sure you will welcome Mr. Paul's exclusive drawings in WONDER STORIES as well.

GOOD PAPER STOCK

Again conforming with the wishes of thousands of readers ever since the beginning of the publication of WONDER STORIES, the magazine is now printed on an excellent magazine paper, as you will have already noticed.

This change, coupled with the other, at once lifts WONDER STORIES out of the class of mediocre magazines and puts it in the ranks of the better magazines. Of course, in the larger sizes, we will also have done away with the rough edges; and all in all, we believe that even aside from the high standard of the stories which now feature the magazine, the other added features now give you the magazine the way you always wanted it.

Your comment on the changes and the general appearance of the magazine, as well as your well-meant criticisms will be highly appreciated by the editors.

The Publishers

Prize Winning Letters

lack Williamson "Twelve Hours to Live" Contest

Y ALL evidences, the contest based upon Jack Williamson's story "Twelve Hours to Live," published in the August, 1931, Wonber Storkes, was the most successful we have

TORIES, was the most successful we have run. One thousand seven hundred and twenty-two letters were received. Many of the answers were ingenious, many were well thought out and quite logical; and the job of the editors to choose the three winners from so many excellent solutions was a difficult one.

For the benefit of the thousands of readers who became vitally interested in this contest, we are taking you behind the scenes, to let you know how the editorial minds worked in choosing the prize winners.

The contest, according to the terms outlined in the August issue, was the determination of how the harassed space captain stranded on a lonely Venusian island with his wife in one of two identical silvery chests; and deadly spores in the other, would go about discovering "which chest was which."

Mr. Williamson very clearly outlined most of the essential facts of the two chests. He gave hints here

and there for the sharp-eyed to catch. He provided opportunities for the clever to utilize for their solutions.

The editors took the following facts into consideration:

1. The chests were of a silvery metal and were 3 feet square and 6 feet long. If the metal were only ¼ inch thick there would be almost two cubic

feet of metal. We do not know its specific gravity. But the author states that the captain (page 360) "tugged at the heavy lid." If the lids were heavy, the chests must be. We have assumed them to be made of silver, of a specific gravity of 10. The chests

empty would weigh, therefore, about 1200 pounds each.

2. The woman, radio set, water and supplies in one chest would weigh about 200 pounds. The chest with Nell in it would therefore weigh about 1400 pounds. Assuming the Black Hawk to wish to make the two chests weigh as nearly as possible the same, he would pack the 54 cubic feet of the second chest tightly with spores. The weight of spores could approximate 100 pounds. The weight of the second chest could then be about 1300 pounds.

3. The woman, radio set and supplies could hardly fill more than seven or eight cubic feet of her chest. The chest with her in it must therefore be almost

4. Since both chests obviously would have to weigh over 3000 pounds to displace their volume of water,

they can both float.

5. The difference of weight of the two chests—100 pounds—is a difference of only seven or eight per cent, and it would need a very experienced observer to detect this weight difference with crude instruments, or to detect the difference of the chest's displacement in water.

6. To lift one end of the chest would require 650 to 700 pounds of force. We have assumed therefore that even with the lessened Venusian gravitation that the captain unaided cannot lift the chests, nor can he drag or push them through the sand more than a few feet. We have assumed also that he has nothing on his person except his clothing, and he can take advantage of nothing in his natural surroundings except what one might always expect to find near water, sand and a rocky cliff.

7. (a) Examining the pyschological side of the problem, we find that the Black Hawk promised to take the woman back to an inhabited planet and not to harm her. He has not promised to save her ultimately. Neither has he promised to save the captain.

(b) In enscribing the words, "The Other One" on

one of the chests the Black Hawk might have meant "Open the other one if you wish to be saved," or he might have meant, "This chest Hat is enscribed is the chest I meant when I said to you, 'In the Other One are the deadly spores.' "A third, he might have meant the words as a warning to open the unerscribed chest. We have as-

The Prize Winners

1st Prize \$25.00—Walter L. Dennis, 4653 Addison Street, Chicago, Ill. 2nd Prize \$15.00—M. Gittleman, 9027 Delmar Street, Detroit, Mich. 3rd Prize \$10.00—Frank K. Kelly, 3933 Benton Blvd, Kansas City, Mo.

> sumed, however, that he is a man of his word and is willing to give the captain a chance to save himself and Nell.

> With these fundamental conditions in mind the editors set about the difficult task of determining the best solutions.

> A great many solutions were based sanely on the difference of weight of the two chests. But few of the readers stated how this difference of weight was to be observed and how it was to be observed so carefully that there was no chance of error. Some merely stated that the ends of the chests were to be lifted and the difference of weight observed. Others had the space captain dragging or pushing the chests into the water to observe the difference of displacement. We have mentioned the difficulties in these solutions already.

Some readers had ingenious devices for having the captain let out the spores from a safe distance. But few made these methods convincing.

The editors were guided by 1. The general soundness of the proposed method. 2. How convincing the author made it seem.

We believe our readers will agree with us on the merit of the three answers chosen as prize winners. Each, curiously enough, used a fundamentally different method of solution.

1st Prize Winning Letter

Submitted by Walter L. Dennis, 4653 Addison Street, Chicago, Ill.

My solution to the dilemma confronting the character in Mr. Williamson's story in the August Wonder Stories is as follows:

Careful analysis of the situation reveals the following facts:

The chests are too heavy for one man to lift.
 A chest containing a woman's body; twelve-hour air supply for an adult human; radio set, and food supplies must be fairly large and proportionately hollow.

air supply for an adult imman; radio set, and rold supplies must be fairly large and proportionately hollow. It stands to reason that these objects are not immovably fixed within the chest and that a small amount of jiggling would reveal their presence.

3. It also stands to reason that a chest packed with

It also stands to reason that a chest packed with powdery spores would give no sound no matter how vigorously shaken.

Working from these facts I would carefully undermine one of the chests (utterly disregarding the inscription) and scoop out a hole that would leave the chest teetering on the edge. I would take care to see that the hole was not deep enough to include the danger of having the chest tip over, and then I would begin to jounce it gently up and down (it states that the lid is heavy, precluding the possibility of its flying open under slight disturbances). If I could hear any sounds from within, no matter how faint, the solution is obvious, however, if no sounds were forthcoming even when teetered vigorously, I would unhesitatingly open the other chest.

2nd Prize Winning Letter

Submitted by M. GITTLEMAN, 9027 Delmar Street, Detroit, Mich.

There is just enough air in Nell's prison to last for twelve hours. At the expiration of twelve hours she will awaken from the effects of the anaesthetic. She will awaken just when the last bit of oxygen is being used up by her.

Directly upon awakening and becoming conscious of her plight in a coffin-like chest, she will do what many people who are accidentally buried alive have done. She will scream hysterically and beat frenziedly on the walls of the chest, in the throes of strangulation.

The chest would vibrate with her movements, the radio transmitter and supplies would be knocked about. There would be rather a commotion inside the chest.

Metals, as we know, are very good conductors of sound. The chests are of metal. Also they are side by side on the beach. It would not be a very difficult task for the captain to fisten attentively, at the end of the twelve hours, for any sounds of movement within the chests.

The moment he is definitely certain he has heard a sound from one of the chests he will lift the lid and remove his wife. By artificial respiration he can revive her if she has begun to succumb.

3rd Prize Winning Letter

Submitted by Frank K. Kelly, 3933 Benton Blvd., Kansas City, Mo.

I would open the chest inscribed with the words, "The Other One."

Study the character of the Black Hawk. He is a man of considerable intelligence, who must constantly exercise his wits in his daring trade. He is a lover of mental torture.

He has weighed the captain in his mind. He thinks he knows how far the captain will carry his reasoning in attempting to solve the mystery. The Black Hawk has said to himself:

"Grant will find the warning on one of the chests and be tempted to follow its apparently plain directions.

"He will suspect me of a trick and turn back to the enscribed chest.

"If he is subtle enough he will realize I know his opinion of me; he will think that my twisted sense of humor may lead me to put the wife in the uninscribed chest, but more probably as a crowning sardonicism to do the unexpected and place the wife in the carved chest.

"Carrying my reasoning a final step, a step the captain is not cunning enough to follow, I will, while he hesitates between doubt and indecision, put his wife in the chest with the mock warning. He will not dare

open it because of the warning."

So putting myself in the Black Hawk's twisted mind I would carry his thoughts one step farther and open the inscribed chest.

--- READERS ---

An announcement of unusual interest to you will be found on page 804

Exiles of the Moon

By NATHAN SCHACHNER and A. L. ZAGAT



(Illustration by Paul)

On the dread line between boiling heat and cold unutterable a swarm of little figures were dancing frantically. A few would make a sudden rush into the inferno and retreat in wild staggerings.

EXILES OF THE MOON

What Has Gone Before

IT (S the year 224d), and Garry Farber is a New York-Berlin rocked of the first rulers of the work. Since Garry is one of the billions of office rulers of the work. Since Garry is one of the billions of conducted Workers, and Namn's is an Articorat—of the ruling Gasta-Well and the state of the billions of the prevent of the state of the stat

which no protest new electrons. One not provide that been supplied with The Workers are lended on the Island, which has been supplied with a smally been condemned to earn their own automace here. Garry it elected there starte quantit to opposition of Jers For. He strends the elected there starte quantit to opposition of Jers For. He strends that with a potential part of the protest of the prot

At the suggestion of Naomi, who has stolen into the expedition, they

strip the cose of their hides and build covacles to paddle to the Island of Lewis, sailer away, where there is a distributed of police. They over-cutalgree for express and a vayage to the moon it became fairly of the control of the control of the control of the control of the moon in the control of the co

this to back let men unconstant. But a triend of knowl in the Park unasses her and imprison Fern. Pers. He Warbers travel to New York and distribute the stone about on the streets, the the street about on the streets, the triend to the York and distribute the stone about on the streets, the street about the street of the street and the street of the street and the street of the street and the

Now Go on With the Story

THIS last installment of this marvelous story

difficulties in the way of all revolutions. In the

world of the future, where instruments of de-

struction and warfare will be those of science,

the mere size of armies will not be at all im-

portant. Ten men armed with scientific instru-

ments of great destruction could easily hold at

Bringing into existence such terrible instru-

ments of destruction, scientists of the future

will have to realize that they may be putting

tremendous power into the hands of people un-

fit to use it. A few men with such instruments

may well control the earth. It happens in this

story that the scientific weapons discovered are

used for purposes both good and bad. The

climax of the story, therefore is the struggle

not of men but of weapons of destruction. And

when the end does come, it leaves us with a

great thrill, and the hope that the future may be

bay an army of thousands.

as this story finally pictures it.

of two worlds brings forcibly to mind the

HE servant did not turn to go as Fenton had expected. "I am having a " headquarters, sir," he said. "They have a prisoner who they say insists that he be brought

before you, that he has an important message that must be delivered to you alone. I told them that you could not be bothered, but somehow they seem impressed and have requested me to ask whether you would condescend to receive the prisoner."

Henry of the Fentons growled testily. "What, more insolence! I told you that I was not to be disturbed on any pretext. It seems to me I've grown too lenient with my household, too easy going. I'm of more than half

a mind to send you all to the Idlers' Colonies and train a fresh crew. There's something gravely wrong when you must pester me with the demands, the demands for sooth, of every prisoner. You're all incompetent! Terrifically so. Why, only this morning my room was entered, an impudent message left on my very desk, and nobody knows anything about it. Of all the -. " He choked in his fury. Anton took advantage of the pause in the tirade.

"That's just it, sir," he cut in. "This prisoner claims that what he has to say to you concerns that message.

"What! What's that? How does he come to know anything about the

message. Who is he? What's his name, his number?" "A Worker disguised as an Aristocrat. His name is Garry Parker, his number ZZ special ex C12574." There was a peculiar note of triumph in the suave, servile voice of the secretary, as if he were saying, inwardly, "Guess that will hold you."

"Garry Parker-C12574," the world councillor repeated slowly. "Why, that's-that's-." Swift scenes flashed through his mind .- A white clad, white-faced girl, blazing-eyed, defiant. Himself, cold and grim. "Change C12574 from ZZ to ZZ special."-A forest glade that was a room, vacant, a gaping hole in the quartz ceiling-

"You idiot!" he shouted into the disk. "Why didn't you tell me that before. Have him brought here at once!"

"Very good sir."

Henry of the Fentons sank back in his chair, his thick fingers drumming on the desk. So that was it, that was who had slipped into his house, his workroom, left the

warning on his desk. Naomi lived! The daughter whose name had not passed his lips since that morning six months ago. against whom he had barred his heart, but not his house! For a moment

a haunting loneliness, a vast yearning, softened the stern features, peered from beneath the bushy, forbidding brows. Then the stony mask dropped again.

A soft chime sounded. "Who is it?" The questioning voice showed no trace of emotion; the Fenton was himself again.

"The prisoner, sir."

"Very well. Bring him in." The entrance panel slowly opened as the thick fingers pressed the release.

His clothing torn to shreds, a smear of blood across his face, a livid burn on

one bare arm, Garry stood there, between two Asiatics. Their neat scarlet uniforms seemed to emphasize his dishevelled state. Each had a ray-pistol at the ready in a yellow hand, and the oblique eyes watched him, cat-like, even as they saluted the ruler of their world.

"Come in, come in," the councillor repeated, testily. "Let's get it over with."

The trio advanced, came to a halt before the great

"Well, what is it?"

Garry drew himself erect with an effort, every fiber of his body was utterly weary. Steadily his eyes met the glowering gaze of the oligarch.

"What I have to say is for your ears alone. Dismiss

these men, I shall not attack you.'

The very audacity of the demand, the assurance with which this Worker thus addressed an Aristocrat warned Henry that the man who stood before him represented some new, some unlooked-for element in the relation between the classes. Prisoner though he were, there was apparent in the man's bearing a consciousness of power, a defiance of the old order. Not for a moment did the councillor think of his own safety. He moved his hand and the policemen went out

-wondering. The portal closed behind them.

For a long moment there was silence, as the two men estimated each other. A peculiar tenseness seemed to fill the room. The oligarch spoke first.

"Go ahead."

"You found a message this morning on your desk. It made two promises. first," and Parker waved at the pictured chaos on the wall behind him, "has been fulfilled. I am about to carry out the second."

"Just a moment," the other interrupted, "you don't think I believe the peculiar wind

storm that started this insane riot going was caused by you, or any other human being?"

ARTHUR L. ZAGAT

"Exactly. You had better believe it, for it is true. I, and my co-workers, very simply, very easily, exhausted the air from the lowest level of the city. The windstorm you speak of was caused by that,"

"You lie!" came the snapped rejoinder.

A SMILE flickered over Garry's countenance. "How otherwise can you explain what happened? Remember, the thing came about at nine o'clock, the exact."

time named in our message."

His antagonist retreated. "Well, granting your claim for the sake of argument, what then?

As Garry started to reply, a sudden change affected the glassy walls of the room. They began to glow, to deepen in a misty perspective. From the surface behind him the scene vanished, and the same cloudy aspect replaced it. Then dim shapes bulked on each of the four sides of the room, dim shapes that became rapidly more defined. In minutes, the office of the ruler of the Americas had seemed to expand, to grow larger by many feet. Its boundaries were vague, misty.

And, four square, seated at desks identical with the one at which Henry of the Fentons sat, facing inward toward him, were four stern figures. Parker's astounded gaze

shifted from one to the other of these almost legendary men as he identified them. And even as he looked, he realized with a thrill that he was present at a tele-audiovised meeting of the World Council, that the Councillors he saw were each seated in his own room, thousands of miles distant from New York.

Here to his right, with clipped beard, high forehead, aquiline nose, was George of the Windsors. That desk was in London, from where the continent of Europe was dominated. To the left, the ruler of Africa, his image brought by the etheric waves from Capetown-Na-jomba of the Zulus, huge, his ebon countenance gleaming oily, his thick red lips sensual, but the gleaming black eyes alive with power and wisdom. Behind, facing Henry, a lean, lank, weatherbeaten, saturnine faced figure-Salisbury of the Salisburys, lord of Australasia. There was something kindly in the expression of the Australian's firm mouth.



NATHAN SCHACHNER

Directly facing Garry, behind the bulking figure of Henry of the Fentons, Hokusai of the Samurai, Master of Asia's teeming millions, sat, inscrutable. His short, thin figure contrasted oddly with the giant stature of Na-jomba, his saffron countenance, his coal-black hair. his oblique eyes were emphasized in their Oriental strangeness by the clean cut blond Occidentalism of George, arch-type of Anglo-Saxonism.

In the others, one read strength, dominance, intelligence, grim austerity or lurking humor in the lines, the shaping of their features.

The Asiatic's face was a blank mask, unreadable, mysterious. From Naomi's talk Parker knew that Hokusai for long had held in the grip of his yellow hands the balance of power between the uncompromising autocracy of Henry and George, and the more humane ideas of Salisbury and Na-jomba. He knew that it was the Asiatic that he must sway in the struggle about to com-

The struggle that was about to commence! . For a moment Garry blanched. He, a Worker, unconsidered, discarded cog in the vast, impersonal World Machine, stood here, about to dispute with the Five who ruled that

Machine! Rash presumption!

But then, as Henry of the Fentons began to speak, to address himself to the others of the Council, Garry felt a flood of confidence, of strength. This, he realized, was not a conflict of Garry Parker against the World Council. The swift moving course of events, the irresistible surge of destiny, had broadened the issue immeasurably, had placed a weightier burden on him. He was no longer the Leader of a little band of insurgents, struggling to save them from death in an alien world. He was the representative of a great people, millions upon millions of the world's downtrodden, champion of their cause against these, their oppressors-

He focused his attention on what the American coun-

cillor was saying. Through the turmoil of his own thoughts he had hazily been aware of Henry's words—a retailing of the finding of the note, of the sudden upspringing of the terrific wind and the catacylsmic events that had followed. "I ordered my secretary to call you together, gentlemen," the Fenton continued, "in order to lay these matters before you, in the belief that they would convince you, as I have been unable, that we must abandon our vacillating, weak-kneed policy of dealing with the Workers. Again and again I have insisted that all malcontents must be ruthlessly dealt with, before they infect the steady, loyal Workers with their damnable rantings about equality.

"I warned you that they were becoming restive, dangerous. You, my friends of Africa and Australasia, have countered with foolish sentimentality, so-called humanitarism. Even when I brought to you convincing evidence that certain of the Workers were actively seditious, sou insisted that they be removed in the sneaking.

puerile way that we denominate ZZ special.

"What has been the result? Open, unabashed rebellion! Here, in my very room, a Worker presents demands! Demands, forsooth! I had not planned his presence, but it is apropos. An object lesson, my friends Salisbury and Na-jomba, in the workings of the softhearted policy you have pursued, and that you, Hokusai, have refused to aid in ending."

Henry's face contorted in a mirthless laugh. "Let us listen to what the knave has to say. It will afford us some amusement. I am sure. Go ahead, Worker."

CHAPTER XX

The Great Council

ARRY'S moment had come. He gathered himself, and began.
"I have simply this to say, gentlemen of the

World Council. A group of Workers are in possession of the means to destroy the Earth's atmosphere, and the determination to use their power unless their demands

are met.

"The disaster that had just occurred in New York is merely a mild example of the effects of the power we wield. Unless I signal your assent to our stipulations before nine to-morrow morning, New York will be entirely destroyed. If you are still obdurate, another twenty-four hours will see the annihilation of London and Paris. And so it will go on, until either you have capitulated, or the Earth is no longer habitable. That this process will destroy the Workers too will not deter us. Better for a part, or for all the Workers to die than to continue the brutish, slave existence to which you Aristocrats have condemned us.

"We demand abolition of the demarcation between Aristocrats and Workers, and recognition of the principle that all human beings are entitled to equal opportunity to share in the product of the Machines, and to equal social status. As a specific application of this we demand the immediate abrogation of the Caste Law.

"The practical details may be worked out later. But in order to avoid the destruction of the Earth the principle must be acceded to. That is all."

Garry finished. For a moment there was silence.

Then Henry's voice:

"You hear, gentlemen! That is all they want-de-

mand they have the audacity to put it. Equality with us. Abrogation of the Caste Law. That is what your leniency has encouraged. Now, if you have been amused enough, I shall have this rascal removed, and we will proceed with our business." His hand reached out to press a summoning button, but Salisbury interfered.

"Wait," his low voice came. "I am not amused—nor inclined to dismiss this question summarily, as you would. I feel as you know I have felt for a long time, that we Aristocrats have no real right to usurp the good things of the Earth, and make the Workers our slaves."

"And I," came Na-jomba's support. "I too feel that we arrogate to ourselves too much. Neither my friend Salisbury, nor I, are afraid of this Worker's threats. But, I take it, we are afraid of our own conscience. Let us discuss this matter further."

"Discuss this matter further!" Henry was purple with rage. "There is nothing to discuss, except how severe will be the punishment of the Workers for daring to send this messenger to us. As for him, my executioners do their work very well."

Salisbury was coldly calm. "You forget, my dear Henry, that there are other members of the Council.

What do you say, George of the Windsors?"

The European's face told Garry the answer, before he spoke. "I agree with Henry of the Fentons. There is nothing to discuss save the matter of punishment."

"The old alignment. You and Henry, against Najomba and myself. And you, Hokusai of the Samurais, do you still hold yourself aloof from our counsels, refusing to east the deciding vote?"

Garry's keen eyes shot to the Asiatic, striving to read the issue. But the saffron face was a graven ivory mask, age-yellowed—inscrutable. No faintest flicker of emotion, no gleam on the black headed eyes, half-hidden behind the slant lids, to tell which way the deciding voice would speak. Parker was trembling inwardly with the vibrant tension, though to all outward seeming he was as coldly calm as the Samural himself.

At last the Oriental spoke. "You weary me, my honorable friends, with your talk of conseience, and of divine right, your prating of leniency or force. To me the question is elemental. We hold what we have by the right of might. By might it can be wrested from us. If what this Worker claims be true, if the ones for whom he speaks truly possess this power to destroy the world, then we must yield. If not—you may flay him alive, burn his comrades in oil, for all I care.

"Worker!" The beady eyes fixed Garry's own, and it seemed to him they pierced into the depths of his very soul. "What proof have you that you possess this power you claim?"

you ciaiii.

WITH an effort Garry replied: "Is not the proof logical? At eight this morning Henry of the Fentons read the note that promised a demonstration at nine.

"Promptly at the time named, the air is sucked from the lowest level of this city. A tremendous wind springs up as the surrounding atmosphere rushes to fill the vacuum. Either I and my co-workers produced this thing, or we were possessed of a magical foreknowledge of the precise time when an unprecedented natural phenomenon would occur. The conclusion seems obvious, to me." And he shrugged a shoulder, in simulation of a carelessness he did not feel.

The black eyes continued to bore into his, "Grant that you did produce this storm. Can you repeat the occurrence, magnify it, as you say you will?"

"If you will search through Level One, you will find scattered here and there a peculiar white stone, the like of which has never before been seen on Earth. That stone carries the secret of our power. It will suck in. occlude, vast quantities of any gas with which it comes in contact. And we have an unlimited supply.

"Where?" came the snapped question, but Garry was not to be caught napping. He merely smiled.

"That is beside the question. Wait until to-morrow morning, if you dare, and you will learn whether or not I speak the truth."

The Oriental's eves still held the Worker's fixed. Twin glittering points of light they were-that swam together to merge in one. To Garry, the watching council, the screens, the room itself faded. All he could see was that shining point of black light, boring, boring into his brain as if to wrest therefrom his very secret. A cold sweat broke out on his forehead, involuntarily his great fists clenched. Unflinchingly he gazed back at that piercing eve-

The Eye blinked for a moment, released him. To Parker the room, the council came back into reality.

The Asiatic sighed.

"Gentlemen, he speaks the truth. He has the power he claims, and the will to use it."

Henry of the Fentons sprang to his feet. "Hokusai, I don't care whether he has or not. I don't care whether he can blast every Aristocrat into extinction by a wave of his hand. Never will I yield, to him, to the Workers. Never will I admit that rabble, that scum, that race of slaves to equality with me, with my people. Rather annihilation than that!

George, too, had risen. "I must add my voice to yours, Henry. I too believe that the Aristocrats are a race apart, of a different, finer fibre than the mob. I feel that at this moment countless centuries of our ancestors look down upon us, waiting to see how well we fulfill the trust they imposed on us. I say with you,

Henry, rather death than dishonor!"

Hokusai, having listened to these impassioned speeches, cut in now with his chill, measured voice. "Histrionics again, George—Henry. They do not impress me. Let us have an end of this. I cast my vote in favor of-"

But just at this moment, when Garry, with a great upsurge of emotion, saw the victory within his grasp, came an interruption. A soft chime, The Asiatic paused-the American spoke rapidly into his disk. Imperative indeed, must be the reason justifying this interruption of a council meeting. "Who is it?"

"Sadakuchi of the Samurai with important news for the Council." There was a triumphant note in the suave

cold accents.

The Fenton glanced quickly at his colleagues, noted their nods of consent. "Very well, come in." He released the door. The figure of Na-jomba flickered and disappeared as the portal swung in the wall where his representation was. Then the black man was back,

Garry swung to the newcomer.

The intruder bowed gravely to Henry of the Fentons.

to each of the other Councillors, then stood at attention. The American obligarch spoke hoarsely,-"What is it. what news have you that is important enough to interrupt a Council meeting?"

For all the deference of his bearing, there was a mocking note in the Asiatic's voice as he replied. "The word I have bears, I believe, a direct relation to the matter which I conclude from the presence of the Worker Parker engages the Council's present attention." A sudden glance of implacable hatred shot toward Garry, then was swiftly veiled. "Otherwise I should not have presumed to intrude."

"Come, come, forget the apologies, out with it!"

The police chief's first words sent a shudder of apprehension through Garry. An agony of suspense seized him. Naomi-had she been captured-had she been captured-was she safe? As if sensing the mental torture that was racking the man who had stolen his bride from him, Sadakuchi spoke deliberately, prolonging the tenseness, the uncertainty.

"Immediately upon being informed of the cyclonic disturbance that had assailed this city, and the seditious action of the Workers, I hastened here, to take personal command of the situation. You gentlemen will be pleased to learn that order has now been restored. Investigations that I set on foot even while the riot was still unchecked disclosed that the atmospheric disturbance had its apparent inception in a sudden exhaustion of the air in Level One. A large number of small white stones, of unknown composition, were discovered hidden at various points on that Level. I had just arrived at the theory that these stones were somehow concerned in the phenomenon when I received an 'urgent' call in my communication disk. That call came from a police post in Mid-Continent Nature Park,"

AGAIN the Asiatic paused, his eyes met Parker's gloatingly. The Worker's face whitened—a dull pulse throbbed in his temples-God, would the man never get to the point. What had happened to Naomi? Was she in this brute's power?

The message was interesting, very. A Worker who had been kidnapped from Vedor Island and compelled to accompany the rebels had finally managed to escape, and had at that moment reached a patrol. The information he gave enabled us to-" He broke off and favored Garry with a slow, sneering smile, then turned again to the Fenton. "Pardon me, sir. It has just occurred to me that since the entire conspiracy has not yet been cleaned up, it might be advisable to remove this man from the room until I have completed my report."

Henry nodded his assent. Fighting hard to keep his breaking nerves under control, clenching his teeth on the question that clamored for utterance, the question that might betray her whom it concerned, Garry was led out, forced to wait in an anteroom, under the vigilant eyes of the guards. Sadakuchi was an expert in the application of the refinements of torture, mental as well as physical. He was enjoying his revenge, full measure and running over.

After what seemed hours of tense waiting, hours during which horrible imaginings seethed through the agonized mind of the despairing man, the panelled door into the Council chamber opened and his arch-enemy stepped through. There was no concealment, now, of the gloating triumph in the man's face. As the door slid shut behind him Sadakuchi paused, his black eyes wandered casually over Parker's tall figure.

He turned to the guards, "Take him to the Con-

demned Chamber in the City Gaol,"

For an awful moment the world swam black before Garry's eyes. Then the clutch of a guard's hand on his shoulder cleared his vision. "Damm you," he shrieked at the Asiatic, "Damm you, what have you done to—" But he caught himself there. With swift returning sanity he realized that if Naomi hy some miracle had not been captured, if Jeris Farr had not mentioned her, (of course he realized that the regenade farmer was the "kidnapped Worker"), he must not reveal her presence upon Earth to Sadakuchi. His teeth bit deep into his lip as he stiffed the wild sentence he had begun.

"Yes," the voice of the Asiatic came to his ears. "What have I done to what—or is it whom?"

Garry did not reply, but swung toward the exit with

his guards.

"Just a minute, Worker," the Samurai called. The guards halted Parker, though he strove to force himself out of his enemy's presence. "Just as something for you to think over in the little time you have yet to live. I leave for the moon at nine to-morrow morning—to take care of the friends you left there. You may console yourself as you face the disintegrator rays with the thought that your traitorous actions have resulted in a great gift to the world—the discovery of the power of the gas on Vedor."

CHAPTER XXI

The Search for Garry

TWENTY-FIVE hundred feet above the ground, the scarlet Arrow drove westward. Within, Naomi stared unblinkingly ahead, tenseness showing in every line of her taut figure. On the vast tumbling floor of dark cloud that hid the ground varicolored patterns showed, produced by the beacon beams of argon-xenon light from the earth below. The girl had set her gyro in the "miscellaneous westward" direction beam, not daring to call on the Mid-Continent Park station for a local guide, and she must watch the location marks for the point where she must take over manual direction of the filer.

"There's Denver, Rade." She indicated a red circle framed in a square of blue. "Another five minutes and

we'll start to drop."

The youth nodded. Throughout the two-hour flight his adoring eyes had never left Naomi's face. "That's good, I'm awfully anxious to load up and get back to New York."

"I too." The girl bit her lip. "I'm terribly nervous. Something has gone wrong, I'm positive. We should never have left Garry there alone. Why didn't you insist on his coming back with you? If anything happens to him I'll never forgive you."

Perrin stirred miserably. "What could I do, Naomi of the Fentons? He is the Chief. I could only obey

orders."

Swift compunction brought a comforting smile to Naomi's face. "I know," she said softly, "You were helpless. I shouldn't have said that." Again the soft whirring of the solar motor was the only sound in the little cabin of the flyer,

Šuddenly Naomi twirled the "automatic control" dial to the "off" position, snapped in the "manual" switchbutton. The diamond beacon, flashing red—green-green—red, was directly beneath. Swiftly she checked the notation on the chart that had been unrolling before her. North-east by east, twenty miles. Under her skilled manipulation, the Arrow began to drop, slanting downward in the direction indicated

"We'll be there in two minutes now."

"Hadn't we better drop slowly, stop to reconnoiter as soon as we get through the cloud bank? Something might have happened?"

"But that'll take too long. We must get back to Garry as quickly as possible." There was urgency in her voice—but the gyro slowed in its descent.

They drifted down into cloud bank. The world disappeared. Grey, writhing shapes bulked close against the plane, shrouded them in dampness. A moment of drab nothingness, then the fog thinned again. Naomi checked the descent, peered eagerly below.

A driving rain blurred the tossing tree tops. Where was the cabin? There, by the tall spruce whose lightning-blasted crown gleamed blackly wet. An exclamation burst from Naomi.

"T -- 1 D 1- 1---

"Look, Rade, what's that?"

"What? Where?"

"There, by the cabin door."
"My God! The police!"

The rain cleared a moment. A scarlet clad form moved, disappeared into the cabin. The two in the hovering flyer looked at each other aghast.

"The police! Then everything is lost." The youth whispered, as if the Asiatics could hear, a thousand

feet below.

"Wait." Naomi was regaining control of herself.
"Perhaps it's just a routine visit of the patrol. Let's
take a look at the cave where they were going to cache
the ray-stone."

The Arrow retreated into the safety of the clouds. Its mistress snapped on the tiny televisoscope—a miniature instrument whose range was barely half a mile. Across the three-inch screen the rain-beaten tree tops swept swiftly, then paused as the hillside in which was the cavern came into view.

The watchers groaned. Distinct against the green, scarlet dots moved. One—two—three! Then a fourth

appeared.

A despairing silence gripped the girl and the youth. Words were useless in the face of the disaster that had overtaken them. Soundlessly Naomi's lips moved, as a faint glimmer of hope crept into her numbed brain. "The ship!"

Again the forest moved across the screen. Here was the clearing where Emma had met her. A green police plane nestled there. More police swarmed about! And another figure. The two peered closely at the imaged scene. A characteristic gesture—the truth dawned on them. "Jeris Farr!"

The renegade entered the police vessel's cabin. A scarlet form followed. "Wonder where they're taking him?" Rade muttered.

"I hope they drown him in the deepest part of the

ocean!" Naomi flared. "He's the cause of all our troubles. Bill Purtell was right from the start, we should have thrown him out of the air-lock on the way to the

"Look here!" A sudden thought had excited Perrin. "If it was Farr who gave us away, maybe the ship is safe. He doesn't know where it's hidden. Remember

Matson insisted on blindfolding him!"

"Gosh!" The exclamation was a prayer. The girl forced herself to move the objective of the 'scope slowly, holding a tight grip on her feverish fingers. So easy to overshoot the mark with this minute instrument. At last-the ravine-its top a slit in the greenery. A silver gleam-the ship! Were there any police around? Impossible to tell in that little screen.

"We'll have to chance a quick drop. You watch in

the screen."

THE whir of the motor rose to a whine. "Now!"
A scarlet streak curved through the rain, zoomed along the length of the ravine, shot up into the cloud blanket again. Swift indeed would the eye have been that noted that lightning swoop.

"Did you see anyone?"
"Not a soul! The ship's safe, so far!"

"Then we've got to get Garry. It's our only chance, to get back to the moon for another load of the raystone! Hold tight. I'm going to drive this ship as never gyro' was driven before!"

Once more two human figures moved in the darkness of the great tunnel through which the Hudson rushed to its resting place in the Atlantic. A light flashed, caught on the dripping rungs of a steel ladder that clung to the dank stone wall, was quenched.

"This is it. The man-hole above opens behind a blank wall. We can get out of there unobserved."

"Then let's hurry. I must find out what's happened

to Garry."

"Hadn't you better let me go up alone, and wait here?" Perrin's voice was anxious. "No telling what might happen to you up there."

Naomi stamped a petulant foot. "Rade Perrin! That's the last time I want to hear anything like that from you. I'm going with you, do you understand?"

The beam illuminated the ladder momentarily. Two dark figures moved cautiously upward. A disk of light showed in the tunnel roof, against it two moving silhouettes. Then the aqueduct was left to its eternal

night again.

With marvelous rapidity, the police and the City Administration Workers had removed all the physical traces of the morning's chaos. Outwardly New York was as usual, save where, here and there, busy knots of laborers toiled to repair some major damage to street or building. But Naomi and Perrin, strolling the stationary walks of Level Two, sensed a new spirit among the Workers. There were furtive whisperings, muttered curses directed at the scarlet law-officers whose usual numbers had been tripled. Where before the denizens of this level had worn the placid, expressionless faces of bovine resignation to eternal labor and oppression, there was now shadowed in those very faces an active resentment, inarticulate as yet, but very definite.

The couple, having returned to the uniforms of Workers, had not dared to linger on Level One. Their unauthorised presence would very quickly have been discovered, their reason for not being at their posts demanded. Level One was for active Workers alone,

But on the Second Level, especially at this evening hour when the day shifts had completed their meals and were issuing forth for the evening's recreation, it was comparatively easy for Naomi and Rade to escape observation and questioning. As to what would occur when the curfew hour struck, and the streets were cleared, they had taken no thought. Their whole energy was concentrated on finding some trace of Garry.

The task seemed hopeless. They did not dare inquire openly of even the most harmless looking Worker -spies were everywhere. All they could do was to thrust themselves through the thickest throngs and listen covertly to the hum of conversation, hoping against hope that some clue as to their Leader's fate would be vouchsafed them. Their nerves, strained already by the long hours of fruitless waiting at the rendezvous, were tensed to the point of collapse by the necessity for simulating care-free leisure.

Bit by bit they had gathered a fairly definite idea of the morning's events, the sudden gasping of the Workers on Level One for breath, the cyclonic inrush of the terrific winds, the upsurge of the terrified mob. Here a white-faced clerk told of how a searing ray-beam had whipped within a scant inch of his head, there a burly steel-worker retailed with gusto how he had snapped with a blow of his great fist the neck of a policeman, isolated from his fellows by a sudden eddy in the mad rush of battle. But of Garry not a word.

A trio of stalwart fellows in the gray-green of the Air Division swept by on the conveyor belt. Naomi darted over behind them, Perrin following more slowly. One of the pilots wore a white bandage about his forehead, another carried his arm in a sling. These youngsters had evidently been in the thick of the fighting, perhaps their talk might bear the information the couple sought.

"Yep. It was a good scrap while it lasted," one was saying, "but we didn't stand a chance. Wonder how

many were killed before it ended."

"Plenty," drawled the chap with the bandaged head. "Tough for them, but there's one consolation. Those of us who are left will last a little longer before being sent off to the Idlers' Colonies."

"You're a tough bird, aren't you?" the third chimed in. "Not worrying a hell of a lot about the poor fellows who

were whiffed out by those damned cops.

"Say, that reminds me. What was the name of that big fellow with the blond hair that had the Berlin run as rocket pilot?"

PERRIN'S arm flinched from the excited clutch of his companion's fingers. Was this the break they were

"Big square-jawed fellow?" The drawl was exasperatingly deliberate. "Hell of a fine chap. Let's see. What was his name. It's on the tip of my tongue." His fingers snapped. "Oh yes, Parker, Garry Parker."

"That's the guy! Well, it's a queer thing, but I

thought I saw him in the thick of the scrap.'

"Aw go on, you're dreaming. He's safe in one of the Colonies. They don't come back, you know."

"Well, maybe I'm wrong. But I've got a good memory for faces, and I could swear this bird was Parker. Say, did I tell you fellows about the dame I carried last trip? She—"

Rade groaned aloud in his disappointment. But Naomi was not to be balked—casting caution to the winds she stepped forward and accosted the youth who had been

speaking.

"Pardon me, but I happened to overhear what you

were saying just now and I want to ask you something."
The man addressed whirled about. A broad grin spread over his good-natured face. "Oh hello, sister. What's troubling you?"

"About the man you thought you saw, Garry Parker."
The girl was gasping in her excitement. "Can you tell
me more about him, what happened to him?"

"Why—no-o-o. Just saw him for a minute. I was a leetle bit too busy myself just then to watch anybody else."

"Oh!" Tears sprang unbidden to Naomi's eyes. "I did so hope that you could tell me—" her voice broke.

"Who is he, your sweetie?"

"A very dear friend. Oh, please think hard. Isn't

there anything else?"

"We-e-II," came the slow drawl, "now that you prod my the cops, him and a couple of others. Alec Simpson, of our bunch was one—by Jove! There's Alec now. Maybe he'll know more. Hey Alet," he shouted across the rapidly speeding central platform to a long, gangling individual who was on the 'slow' belt moving in the opposite direction, "Come over here, you old sonuvagun!"

The other waved a nonchalant hand, moved slowly across the bets till he was on the express platform going their way, stood still while the speeding conveyor brought him abreast, then joined the little group. "Hello, gang, what's all the yellin' for?"

"Thought you were rotting in jail. What happened, were you too lousy for even the yellow men to stand

you around?" "Oh—that. I just used me influence. When they found out who I was Sadakuchi himself came down to apologize for pestering me. Asked me to Join him for lunch with Henry of the Fentons, but I told him that I really couldn't spare the time!"

"No kidding. This girl here's worried about a chap who was nabbed about the same time you were. Know anything about him?" Briefly he described Garry. The new-comer nodded and turned to Naomi.

"Always ready to oblige the ladies. Yuh see, sister, it was like this. I met him in the calaboose. We're all nice an' meek except the chap you're askin' about. He sets up a holler that he's got to see Henry of the Fentons, that he's got to tell him somethin'. At first the just laugh at him, but he whispers somethin' in the captain's ear, an' after a while two guards come for him. Whether they took him to the Fenton ron t I don't know.

"We hung about for a couple of hours, an' then the big gun o' the New York division himself talks to us over the televiscope. He give us rats for what we done, but winds up with the cheerin' news that the Fenton has decided to be merciful an' release us. But we're to remember that we was all booked, an' that if we kick over the traces again, or so much as looked cross-eyed at an Aristocrat it'd be curtains for us. "Well, yuh can bet we was glad to get out o' that jug. Me, I'd never expected to see daylight again. Just as we came through the door, jamming in the big rush to get out, I see this blonde chap between the same two guards what took him away. They was just goin' in a tower right next to the place we'd been. Funny lookin' place, too. All painted black."

Naomi gasped, her face, white enough since she had heard of Garry's capture, grew paler yet. Every drop of blood drained from it. "The Condemned Chamber," her whisper was scarcely audible, "The Death House!"

"Oh yeah," her informant whistled. "That explains what I heard one o' the guards call to the cop that was lettin' us out. "Try to get over at noon to-morrow,' it was. Then he laughed, a nasty greasy kind of laugh. I fetl like plantin' me fist in his mug." His face showed his concern. "Say, I'm sure sorry it's bad news I'm telling you."

CHAPTER XXII

The Passing of Rade Perrin

TT SEEMED to the girl that the world had crashed about her. But she forced a tremulous smile, and a whispered, "Thank you." Then she turned away, reeled, and would have fallen had it not been for Perrin's quick supporting arm. She felt that arm trembling as it held her.

"Take me away somewhere," she wispered, "I've got to think."

"Yes-but where?"

"Oh, I don't know—anywhere. Out of this crowd,— Oh, Rade—they're going to kill my Garry!"

The youth looked around him, despairingly. Where

was he to take the almost fainting woman? Then he noted a scarlet clad Asiatic peering curiously.

"Naomi of the Fentons," he whispered urgently, "pull

yourself together, or we'll be in trouble. That policeman is about to make up his mind to come over."

The girl straightened. "Tm all right now," she said bravely. "But we've got to get away. We must plan something—get into our Aristocrat costumes and go up to Level Three." Hidden underneath their Worker's uniforms were the robes that would make them free of the upper regions of the city. Her lover's description of how he had made his nightly way to her in the days of their courtship, so long ago, came back to her—suggested something.
"Oh, I know. There's a place where Garry used to

"Oh, I know. There's a place where Garry used to change—listem—do you think you could find it?" Quickly she repeated the details as they crowded back into her memory. As lovers will, Garry had described to her every inch of the path. Rade's face lit up as she talked.

"Kight!" he exclaimed. "I know just where that is. Come on!" and he almost dragged Naomi across to the express belt. Neither noticed the watching policeman gesture covertly to a wizened Worker in navy-blue, whisper a rapid sentence. They were blissfully unaware that the seeming Worker was on the conveyor, merging himself in the crowd behind.

"There it is!" The dark aperture in the Gymnasium wall showed plainly. In moments they were diving into the welcome blackness.

"Oh, it's good to get away from all those eyes, every one of which might discover us for what we are! Let's get away back, where we can talk and work out some

way of saving Garry." Naomi was leading now, stumbling over the debris strewn floor. "This is far enough,

I think. Let's sit down here on the floor."

"Listen, Rade," she spoke again, after they had made themselves as comfortable as possible. "I know that Death House. Sadakuchi took me all over it one day, about a week before I ran away. He was very proud of it, had planned it himself.

"The condemned are kept in small cells at the very top of the tower. There are no bars on the windows, the doors are not sealed. There isn't any need for bars or seals, because the whole outside of the tower, the corridor along the cells, are bathed in paralyzing rays. There is even an inverted cone of them above the tower, to guard against attack from the air. No one can penetrate that screen, except when momentarily the rays are shut off from the guardroom at the base.

"The floor below the cells is one great room. It is here that the executions take place. The condemned man is made to stand in the centre of the room. All around

him are police, each with a ray tube."

"The only entrance into the tower is through the guardroom on the lowest floor. And a strong force of Sadkuchi's most loyal and efficient men are stationed

Naomi paused. "Seems hopeless to attempt a rescue," Perrin observed in flat dull tones.

The girl did not seem to notice. She appeared to be meditating, striving mightily for some way to force this

impregnable fort.

"For some reason," she resumed, "the City Prison, and this tower of which it is a part, were placed on Level Four. Perhaps it was thought that in the event of an uprising of the Workers it would be safer to have it surrounded by Aristocrats. As a matter of fact, it is located in the great Pleasure Gardens, hidden by a thick screen of shrubbery from those who take their recreation there. Perhaps, if we get into the Aristocrat robes, and conceal ourselves in that thicket, from which we can watch what is going on around the Death Tower, we may chance upon some scheme by which we can rescue Garry. If we can only get him out-there's a police gyro' always kept in readiness just outside,-the swiftest one they have. We could jump into thatthey'd never catch us. Oh-think hard, Rade. There must be some way. There must be."

"I'm sorry, Naomi of the Fentons, I can think of nothing. But perhaps if, as you suggest, we hide in the shrubbery, something will occur to us. You change here. I'll go further up the tunnel and get into my disguise.'

"Very well. But it seems such a forlorn hope."

Perrin got to his feet, turned to proceed further into the darkness. Meantime he was unbuttoning his tunic, reaching in for the concealed robe. Suddenly a sharp hiss from Naomi startled him.

"What is it?" he whispered.

"Hush. I thought I heard a sound, way down at the entrance.'

A TENSE silence, in which Rade heard the thud of his heart. At last Naomi spoke again, her voice low. "I must have been wrong."

Perrin crept up the tunnel. This was far enough. he decided; he would change here. In great haste he stripped off his tunic. He felt the bulge of a knife in its folds. Without thinking he pulled it out, was about to thrust it into the Aristo robe, when he heard a sudden scream.

He whirled in an agony of apprehension. That was Naomi's voice!

Knife in hand he dashed back. There were sounds of a struggle! A light flashed in the blackness-illuminating momentarily two struggling figures. Rade shouted something as he ran-what it was he himself did not know. Another flash showed Naomi prostrate on the floor of the tunnel; someone bending over her. The intruder saw the racing youth, snapped out the flash. Then a blue beam stabbed through the darkness. Missed him!

Perrin leaped, his blade slashing before him.

Another blue dart caught him in mid-air. Excruciating agony cut through him. But he felt the knife sink sickeningly into softness. Then a pang of exquisite anguish as the ray-gun flashed once more, close against his body.

Naomi crouched where she had fallen. The light that had been borne by her half-seen captor lay on the floor, its dazzling beam full in her eyes. She could see nothing of the combatants, heard only their snarls, the threshing of their bodies. She pushed against the floor to go to Perrin's aid. But a scream stayed her, a scream of mortal agony. Then a blubbing sound, as of air being blown through some thick liquid. A moan. Silence.

The girl seized the ray-beam that was casting its useless illumination on the debris underfoot, swung it around. Two contorted bodies lay sprawled, locked close. A horrible veiling of blood covered both. She bent over the couple. The blood was flooding from the slashed throat of a wizened Worker in navy blue, whose hand still clutched his deadly weapon. An awful stillness told its tale of death.

The other, Rade, moved as she knelt and laid a trembling hand gently on him. She gasped in horror. Two great wounds, their edges charred black, marked where the lethal ray had seared through him. The eyelids under the white, damp forehead flickered open. Eyes, darkened by pain, looked up into hers. The twisted mouth smiled, faintly. "Are-you-safe?" She could barely hear him.

"Yes-yes. But you? Oh Rade! You're terribly hurt!"

"Dying. But-it's all right-if you're-safe."

"Rade, Rade-why did you do it? You should have remained hidden. You could have gotten away, saved Garry, saved our people on the moon. He was the one to think of, not me.'

Again the pathetic smile showed on the tortured face. "Garry-moon-earth could smash-all I care, You -Naomi-of the Fentons-all that mattered-to me. You safe-I die happy. Because,-can say it now." A momentary strength seemed to come into his voice, "Because I loved you so." Then a shudder shook his body. the eyes closed. A faint whisper, "Goodbye." And it was over.

Naomi kissed the white, still brow, "Poor boy, and I never knew it." She moved dully, as if in a dream. Aided by the spy's light, she covered the lad's body as well as she could with the bits of debris. Then she per-

formed the same office for the other. These things done, the comfort of activity denied her, a sudden weight of irremediable loss, of horrible loneliness, overwhelmed her. Her legs seemed to lose their strength, she slid gropingly down the wall to the floor. Head buried in hands, she sat, black despair filling her soul. Then the dam broke, and the welcome relief of tears came to her.

At last the thought of Garry struck through her grief, for the boy who had so long loved her hopelessly. She must pull herself together, try to accomplish alone what had seemed an impossible task even with Rade's help, the rescue of her lover. She dried her tears, adjusted the white robe which she had just donned when the spy had slipped up silently behind her, pulled down the close-fitting helmet.

Apparently the pseudo-Worker had been alone, no one had appeared to see what had become of him. It

would be safe for her to emerge.

A last look at the stony mound that concealed what remained of Perrin. The glint of the spy's ray-gun caught her eye. She picked it up, thrust it underneath the white folds of her garments,

"Goodbye, Rade," she whispered.

The vernal sun, nearing its midday height, beat down with unwonted warmth on the great Pleasure Garden of the Aristocrats, freshly green with the newly unfolded leaves, the just opening flowers of spring.

But to the heart-sick girl, hidden in a dense thicket of shrubbery, all this beauty was drab and grey. Hour upon hour she had crouched there, burning eyes focussed upon the black tower across the wide, crystal-floored plaza, her brain, her very soul searching, demanding a way to save her lover. Fruitless, all the long watching, the weary thinking. Not even a glimpse of Garry's face had been vouchsafed her at one of those windows so deceptively open to the spring breezes. No break in the iron routine, no momentary relaxation in the watchfulness of the outer guard, had rewarded her untiring watch. And now the fatal moment was twenty minutes away.

NAOMI fingered the ray-tube. She would never return to the house of her father, to be bartered for power to a member of an alien race, or to live on, a scorned outcast, saved from the wrath of the outraged Caste Law by her father's position. The rapidly contracting shadow of the green gyrocopter in the centre of the plaza made a grotesque pool on the translucent pavement. When that shadow disappeared under the fuselage, as the sun reached the meridian-well-perhaps her soul would accompany Garry's in some wild flight among the stars.

The great bronze door of the grey Gaol slid open. A stocky police officer appeared, a file of a dozen patrolmen followed. To the staccato commands of the officer, they formed in platoon front. Naomi caught her breath. From a black box that he carried the officer was distributing ray-guns to the men. She knew what that meant.

A staccato command. With the precision of long training the scarlet executioners goose-stepped across the plaza, right-faced at another barked order, and disappeared in the Death Tower through the portal that glided open to admit them. The clang of the returning barrier seemed to shut out the last faint gleam of hope.

A soft hissing sound caught her ear, A Hammond car was coming up the path that entered the prison plaza a hundred feet to her right. Striving to drive from her mind the torturing images of what must be going on in the black tower, she peered in the direction of the sound. Witnesses to executions were unusual. Could it be that Sadakuchi himself was coming to watch the final dissolution of his rival? The scenes of carnage that she had witnessed, the primitive struggles that she had passed through in the half-year since last she had been in this park, had stripped much of her innate gentleness, of civilization's fine veneer from this daughter of the Fenton's. She raised her weapon. If it were the Samurai,-

The Hammond nosed out of the path's entrance. The sun's rays flashed golden from it. She knew the rider. Not the Asiatic, but Anton Francks, her father's secretary. No mistaking the dark, sharp features, the hooked nose, the black, kinked hair, the slender, almost effeminate figure. Even if he were not in the aureate uniform of the Councillor's personal service she would have rec-

ognized him anywhere.

What could his errand be? A nebulous plan formed -was translated swiftly into action. The secretary was close alongside her hiding place.

"Anton!" she called from her concealment.

Francks slammed on his brakes, was almost catapulted from his seat by the sudden halt. He turned a startled face toward the shrubbery.

Naomi called again, "Anton, in here, I want to talk to you."

The secretary's mouth dropped open in ludicrous amazement. Incredulity, joy, a veritable kaleidoscope of emotion showed in his sensitive face. He half rose from his seat, hesitated.

Naomi was desperate. The time was short. Ten minutes, not more. Greatly daring, she thrust her head through the leafy screen, showed her face momentarily. "It's I, Naomi of the Fentons, come in here at once."

Francks was convinced this was no illusion. He sprang from the tiny vehicle, shoved through the interlacing bushes. There she was, veritably, the lost daughter of his master. But-but-his eyes goggled, his face paled. The girl was pointing a ray-gun at him!

"Quick!" Her voice was urgent, "What are you

doing here?" The man's mouth opened, closed, opened again, sound-

lessly. Incongruously the thought flashed through Naomi's mind, he looked just like a startled fish, with those bulging eyes, that rounded, gaping mouth.

Answer me, or I fire! Quick!

"I-I, Henry-your father," the frightened man was stuttering, "he ordered me to attend Parker's execution, to-to try to get news of you from him-secretly. At the last moment his iron control broke. But he would not come himself."

There was a chance, a slim chance!

"Do the guards know you?" she snapped.
"N-no. Never been here." Something of Naomi's haste had impressed itself on Francks.

"You must have credentials then, a pass. Let me see it."

He pulled a paper from his pocket. Naomi snatched it from him. Swiftly she read.

"To the Commandant, City Gaol:

The bearer, Anton Francks, A96053, is my personal representative.

You will honor his requests as if they were made by me.

Henry of the Fentons,

World-Councillor." Emblazoned in purple was the seal of power; the eagle, circled by thirteen stars.

A new light blazed from Naomi's eyes. Her scneme was full formed now.

"Strip off that uniform!"

The other flushed, "But, but-"

The ray-gun jerked threateningly. "Strip it off, I There was no doubting the ominous threat in the girl's

tone. Francks complied-in a moment his golden garment was lying on the ground.

Long ago Naomi had been told that a momentary flash of the death ray, at quarter power, would render its victim unconscious for hours, but would not kill. Remorselessly she snapped the trigger. Francks collapsed, tumbled into a bush that held his inert body from the ground.

Naomi was out of her robe, had donned the gold uniform with the speed of desperation. Was she in time? The metallic Time Broadcaster's voice responded to her flick of the button on her disk-"Eleven fifty-five."

CHAPTER XXIII

The Race to the Moon!

CHE was in the Hammond car, had skimmed the short distance to the grim door of the Death Tower, was raising her hand in the signal for admission. Outwardly calm, but it seemed to her that the thumping of her heart could be heard through inchthick beryllium-steel barrier.

"Well, what is it?" a gruff voice sounded.

She held out the paper with her father's signature so that the invisible search-ray might scan it. "I come from Henry of the Fentons. Take me to your commandant at once." Not a tremor in her voice. An icy calm had descended on her.

A deep respect sounded in the response. "But he is in the execution chamber, sir. He will be at liberty in

Her eyes flashed dangerously. "Do you dare dispute the Fenton's command? Take me to the Commandant at once!"

"Yes, sir." She caught a shimmer as the paralyzing ray-screen was lifted. She was within the tower, a deferentially saluting policeman at her side,

"Hurry!" she snapped.

She was rising on the elevator platform. Slow, oh how slow. "Oh God," she prayed silently, "may I be in time."

The stone-valuted execution chamber. Her eyes flew to the stalwart figure, naked to the waist, standing alone in the centre. Garry! Erect, no cringing fibre in his body. His eyes were fixed on some distant scene that only he saw. There was the shadow of a smile on his face.

A line of scarlet circled about Garry's straight figure, bristling with ray-tubes directed at that human focus. A circle of stony-faced, slant-eved Asiatics. To one side, the young officer she had seen outside. Another, stout, gray haired. Even as she took in this scene in a flashing glance his mouth opened for the fatal com-

"Stop!" her voice rang out, cut startlingly across the

The Commandant whirled, the command ungiven. Naomi was running across the floor to him, the stolen token of authority held out before her.

The officer's stout face darkened with anger, "Yama-San, what does this mean?" he roared at the cringing

guard who had brought her.

Naomi had reached him. "Orders from the Councillor," she gasped. The Commandant was reading the paper. Out of the corner of her eye the masquerader caught a single start from Garry, then his body froze into rigidity. The girl's attention fixed on the Oriental's inscrutable face. Would her colossal bluff work? Would he think to compare her thumbprint with the identifying numerals after Francks' name?

The officer looked up. "What are the Councillor's orders?" Deference in his tones! It was working.

The impossible scheme was working!

Could she keep that surge of jubilation from thrilling in her voice. "The Councillor received certain information this morning concerning which he wishes to question the prisoner, Garry Parker. His sentence of death is commuted until this hour to-morrow. He is to accompany me to the Councillor."

Perhaps the Oriental wondered at this peculiar message, but his expression did not change. "Very well,

sir. I shall have a guard go with you.

Naomi's heart sank. "No," she said deliberately, thinking fast meanwhile. "I do not think that will be necessary. Henry of the Fentons is engaged in conference with an assembly of division-governors present in person and would not wish the interruption of police officers in his chambers. I have this," she displayed the ray-tube, "and will convey the prisoner in the police gyrocopter stationed just outside. That will be safe."

The officer looked doubtful, "If you will permit me. I am responsible for the custody of the prisoner. If

he escapes-"

The seeming secretary broke in. "I will assume all responsibility in the name of the Councillor.'

The Asiatic still hesitated. Naomi played her trump card. "There has been enough of this," she said testily. 'The paper you hold in your hand gives me the requisite authority. Do not delay me further or you will suffer the consequences of disobedience."

The Commandant shrugged a fatalistic shoulder. He dared not dispute the Fenton's own signature, and the purple seal. He turned to the younger officer.

"Have the prisoner clothed, and deliver him to the Councillor's representative. Be sure you take a receipt for him in the proper form."

THE speeding gyrocopter was left to the automatic pilot as its two occupants, safe at last, gave vent to the emotions that overwhelmed them. All Naomi's fine courage fled. The inevitable reaction had come. She was crying and laughing by turns as Garry held her close, petted her as if she were a little child, strove mightily to soothe her hysteria.

At last sanity came back to her. She raised a shame

filled face. "Oh, Garry-what must you think of me? Playing the baby act like that?" "Think of you?" His voice found new low tones.

"That you are the bravest, finest, splendidest, most wonderful woman on Earth!" "Really, Garry? And you don't think less of me

because I broke down?"

"Not a bit."

"Garry-you needn't kiss me with every word you say." She was herself again, "Enough of that. I have terrible news for you. Matson and the rest were captured, and all our ray-stones too,'

"I know." Parker welcomed this. The question that

had been trembling on his lips since the green gyrocopter had soared from the prison plaza, that had been held back only because Naomi had been in no condition to answer coherently, came rushing forth. "The ship. Did they get that?"

"No. Garry."

"Thank God for that! We've got to get to it at once. Sadakuchi planned to leave at nine this morning for the moon.

"At nine. It's one now. And this plane's awfully slow. It will take us another four hours to get to the Nature Park. Eight hours' start. Oh, Garry-what can we do?"

"Do? Get after him. That's all there is to do. But where's Rade. Did you leave him at the ship?"

Tears sprang to Naomi's eyes, "I-I've been afraid to tell you. Rade was killed last night. He died bravely, Garry-fighting for me."

"Dead! Rade! How? What happened?" And Naomi commenced the long tale of her adventures.

The green gyrocopter had hardly touched the ground, when Garry and Naomi were out of it, racing for the great liner that loomed before them. Through the entrance they flung, barely taking time to pull the levers behind them.

"Oh, Garry, do you think we'll be in time?" Naomi panted.

"Sadakuchi's got eight hours' start on us," he flung over his shoulder as he leaped for the control room, "If he gets there ahead of us-" There was no necessity to complete the sentence. Both knew what would be the fate of their comrades on the Moon.

With swift, sure movements Garry eased the great liner up through the narrow opening. A little to one side, a faint shade to the other, and the race would be over right at the start. Neither breathed until there was a sudden vista of pine covered slopes. They were through!

"Hold tight," Garry warned. "I'm rocketing right from here. Every second counts."

The girl nodded bravely, caught hold of a stanchion for support. In a concussion of swift flame they were off, leaping for the heavens. No careful calculations of their course, no cautious pointing for their target. There was no time for that.

All that Parker knew was that Sadakuchi was ahead, careening through space to catch the moon colony unawares; to capture and destroy it.

Even as he plotted his course, in the interior of the little cubicle, Naomi crouching white-faced, tense, at his side, there was but one repetitive thought hammering

at his brain: "God, we must get there before he does,

Eight hours' start! Eight hours in thirty-six! How could he make it up?

He looked at the white-faced girl. "There's hardly any fuel left in the tanks," he said irrelevantly.

She knew what he had in mind. "Use it," she answered his unspoken thought. "It won't matter anyway if we come too late; if our people are destroyed!"

"Good girl!" he nodded approvingly, as well at the fine bravery of her as at her unconscious identification

with his caste. Without another word he set the rear rockets to con-

tinuous bursts. They were hurtling through the void at a reckless twelve miles a second. On and on they swept, the great ship quivering to the blasts of the rocket tubes, the two figures within consumed with a terrible impatience, barely taking time to gulp a mouthful of food, watching with strange fierce eves the reluctantly growing disk of their destination, feeding the last driblets of their precious fuel into the combustion chambers with a reckless abandon, obsessed with but one driving, overpowering emotion. "We must get there before it is too late!" On! On!

HE old freighter crashed into the crumbly pumice of the moon in a smother of flame and a storm of dust. The last ounce of fuel had been drained to cushion the force of the landing. The tanks were dry!

But Garry and Naomi did not care! Only one thing mattered. Had they won the race with Sadakuchi? If not, and his rocket-cruiser were already landed, had he discovered the hidden caverns of the settlement?

The craft was still rocking from the jar of the tremendous impact as, clad in space suits, they darted out of the air-lock. The blackness of the lunar night enveloped them. An oval disk of light danced uncannily athwart the uneven ground from Garry's ray-beam. Naomi's hand thrust out, covered the lens,

Turn it off," she whispered, "for all we know they're here." It had taken all her pleading to persuade Garry to land a half mile away from the tunnel entrance. "No use inviting our own destruction, if the cruiser has gotten there first," she had argued. "One whiff of their rays and we wouldn't be any help at all to our friends."

Garry masked his light. "All right, but if they can't see us, neither can we see them."

"We'll have to reconnoitre, I suppose,"

"Come on then," impatiently. "But watch your step and keep close to me, or we'll lose each other."

Very cautiously, with many stumblings and sudden falls, they worked their way over the scarred and pitted terrain. Suddenly Naomi gripped Garry's arm.

"Do you see it?"

Off in the distance, faint scutterings of light darted aimlessly over the jagged landscape, weird flashes that paused and turned and lifted. In that direction lay the underground colony!

A space-suited figure was caught in momentary illumination before the light moved and was quenched in the airless dark.

The girl gave a little joyous cry. "Our people! They're safe yet, thank God." With that she would have darted forward, but Garry's upthrust arm barred her way.

At the sight of the moving lights, at the brief disclosure of a human figure, all his fierce eagerness died. Once more he was his old cool, reasonable self.

"Don't be in too much of a hurry," he warned the ardent girl, "how do we know they are not Police?"

Naomi stopped suddenly. "Garry, Garry, it can't be!

It mustn't be! That would mean—" she could go no further.

"Yes, it would mean that our friends are either killed or captured. That is why we must make sure of their identity before we disclose ourselves." A sudden suspicion struck him. "If they are Sadakuchi's police, they were guided here. Otherwise they could never have discovered our hideout in the wast spaces of the moon."

"Jeris Farr!"

"Exactly." The way Garry's jaw set with a snap boded ill for the traitor if they ever came face to face.

There would be no mercy!

Then a laugh broke from him. "How damn silly of me! May be our own fellows at that. Come on; let's

look. But no beams."

Once more they crept along, like scouts on a trail, closer and closer to the intermittent flashes. Suddenly Garry seized his companion, dragged her down behind a

jutting boulder.

"Ssh, not a sound, as you value our lives," his voice

barely whispered in Naomi's disk.

Faint voices came to them. Whoever was out there had communication disks also. A distorted circle of light cut across the ground, directly past their hiding place, lifted into nothingness, and impinged again yards

Garry strained fiercely to hear what was being said. But only a confusion of murmurings beat upon his ears. From the darting disks of light, from the dissonant noises, there were a good many people out in the dark of the moon. Friends or foes—which? He could not tell. If they were the Workers, what was the reason for leaving the warmth and light of the interior caverns? If they were Sadakuchi's police, then the colony must have been captured already. These men were searching for something—that was evident from the way they threw their beam-rays. For what?

CHAPTER XXIV

Trapped!

HEN suddenly a voice reared out of the chaos of small noises—a harsh, rough voice, yet somehow tinged with servile fear.

"I tell you, Excellency, those two who escaped were the worst rascals of them all, except Parker, damn him, who's back on Earth."

Garry's heart gave a great bound. There was a faint smothered exclamation from the girl at his side.

Jeris Farr! Back on the Moon!

A cold smooth voice flowed out of the sudden hushed silence, suave yet arrogant with command. "The fellow Parker who frightens you so much is dead. He was executed at noon of the day we left."

Garry grinned at the news of his untoward demise, even as he recognized the voice of Sadakuchi of the Samurai, Chief of the World Police.

"But why should we fear these two," the speaker pursued with delicate contempt, "why should we not leave them to die in this so desolate place, instead of wasting our time in futile searchings? The purpose of the expedition is accomplished." Garry shuddered. "I shall order my men to return."

"Excellency, you do not know those two devils as I do," Farr cried in that strange mixture of gruffness and servility, "give them any kind of a chance and they'll do you harm."

"Bah, they are Workers, and not to be feared," sneered the Asiatic Aristocrat. "Back to the cruiser, men, we start for Earth at once."

A short sharp sneeze resounded loudly in Parker's disk. Naomi!

"What was that? Who sneezed?" Sadakuchi's voice rang out, suave no longer, but brittle, clipped.

Garry heard the faint hammer of Naomi's heart as they shrank deeper against the blackness of the rock.

Out beyond no one answered.

There was a dangerous edge to the Police Chief's voice as he repeated his question sharply. "Who sneezed, I say?"

"Not I." "I didn't." There was a hasty chorus of denials.

A breathless pause that seemed centuries long to the crouching pair.

Then Sadakuchi's voice again, subtly cruel, faintly tinged with mockery. "Ah, there are others about on the Moon; doubtless the Workers who have eluded us so long. Strange that a poor little sneeze should give us the opportunity of meeting again."

Abruptly the mockery vanished; incisive and harsh were the commands he snapped off. "Scatter, men. Search every nook and cranny. A reward for the man

who catches the slaves."

Garry did not wait for the quick shifting and crisscrossing of the hand flashes. He was wrenching at the bolts that held the leaden soles affixed to the shoes of Naomi's space costume.

"We'll have to run for it," he whispered rapidly, as he literally tore them off, and seconds later followed

suit with his own.

The grim darting lights were coming closer to their

hiding place. If they remained where they were, they would inevitably be discovered.

The searching flashes shifted a little away. "Now."

Garry said tensely, "run as fast as you can."

Two silent figures arose, and bounded noiselessly into the impenetrable lunar night. High off the ground at each stride they leaped; like giant hurdlers they soared and dipped.

A searcher swung his beam in a wide arc. The invisible ray caught Garry in full flight; blazed him into being against the impenetrable curtain of blackness.

A distant shout came to Garry. He veered his head sharply, saw the glow of illumination on his body. The exposing ray held him cruelly steady. Far off he could see the scattered flashes untangle, shift toward them. The bloodhounds were on their trail.

"Run in zigzags," he cried sharply to Naomi, "away from me!" No sooner were the words out of his mouth than a sharp pinnacle of rock directly in front of him glowed startingly into being; fused into a welter of cherry red, and whiffed suddenly into the surrounding darkness.

"They're using disintegrator rays," he shouted des-

perately. "Run the other way. Keep away from me, Naomi; they've got me focussed."

The girl's figure loomed close. "We stay together," she panted.

Another boulder flared and melted; then another, unpleasantly close. The police were getting the range now. Two fantastic figures dashed erratically over the

shattered surface of the moon.
"I'm afraid I can't run any further," Naomi panted.
"We're leaving them far behind," Garry encouraged her, throwing a hasty glance over his shoulder. Then b jumped. Inches away, the ground flamed and

seethed. It was a narrow escape from annihilation.
Naomi's labored breathing came in whistling sobs
now. Parker flashed his ray-beam. It impinged upon
a beetling cliff that loomed incredibly high to the right.

"This way, dear," he cried. "We'll lose them around that height."

NAOMI staggered along, putting every ounce of her remaining energy into this last effort. Carry's arm supported and guided her. They darted behind a sharp angle, and found themselves in a maze of narrow ravines. More slowly now they moved, picking their way cautiously by the light of their rays. The pursuit had been outdistanced, lost.

"What will we do now?" Naomi tried to speak bravely, but there was a quiver to her voice. "The colony's captured; the police know we're here. They're sure to find our ship, and then—we're—we're marooned on the Moon."

"Do?" Garry echoed savagely. "We'll smash their ship if it's our last act on the Moon. Then we'll all go under together. Or else—"

A black shape loomed suddenly in front of his startled vision, and the next instant he was borne crashing to the ground. The violence of the fall stunned him momentarily. He heard a faint choked cry from Naomi. Garry struggled dazedly to disentangle himself from his unseen assailant, but a great weight oppressed his chest, a metal shod hand was fumbling at his throat through the thin fabric of his space suit.

"Got your man, too?" he heard a fiercely exultant voice. "Rip the suit off his yellow belly an' give him a taste o' moon medicine." A thin pale gleam of steel lifted in the dim earth-shine.

An incredulous gladness overwhelmed Parker, even in the imminent danger of death.

"Stop your damned nonsense, you crazy fools," he shouted hastily, even as the weapon poised for swift descent. "It's us—Garry and Naomi!"

Two simultaneous exclamations, then a whoop of joy-

ful half-belief.
"You old son—you—how in Tycho's name did you ever—here, lemme take a look!" A flash dazzled in Garry's eyes.

"Hey, Dore—it's him—he—hell, it's the pair of 'em. What d' you know about that?"

Purty and Swithin scrambled to their feet, dragging up after them the comrades they had so viciously attacked. In the wild surge of their delight they danced insanely, grotesquely about the battered pair.

When the violence of their emotions had subsided somewhat, Purty told his story—in grim, repressed accents. "After you left, a kind of apathy settled down on the Workers. We could hardly get any of them to perform the most necessary jobs—even to keep life going in the Colony. No one really believed in the success of your venture. Some there were who muttered about your desertion—that you had taken this means of escaping back to Earth. I put a stop to that damn soon, I'm telling you.

"The better part of a week passed, and still no sign from you. The poor slobs just floundered into dull despair—lay around all day doing nothing. Couldn't get them to budge. Rade and I did our best—had to run he machinery all ourselves—and we were getting sort of worried too—though Dore here wouldn't admit it. He sure can keep a stiff upper lip.

"We had a man stationed at the entrance to the tunnel continuously, two-hour shifts, to report any sign of your return. I was just turning in for a little snooze, when the fellow comes scooting down to our quarters, just as fast as he can chase. He was all out of breath by the time he got his helmet off.

"'They're back, they're back,' he pants away, and

stops to catch another gulp of air.

"Who's back, you eternal fool,' I screamed at him, and begin to shake the daylight out of him. My nerves were a bit on edge.

"The poor fellow choked out his words. 'Our comrades. I just saw the ship land in a smother of flame and dust.'

"Well, you can imagine the yell that went up from the crowd. Before I knew what is up, the whole gang was dashing for their space-suits, squirming into 'em just as fast as they could, and were making a bee-line for the slidling gate. You bet I was just as excited as they were. But Swithin here says to me. 'Better investigate. Send just a couple to see.'

"'See what, you old idiot?' I yell at him.

" See if they are Garry and Naomi!'

"That pulls me up a bit, but while I'm staring at him, the whole mob's out, and rading up the tunnel like scared rabbits. "Too late!" He bites it off, and calmly gets into his suit. We're following the bunch, most of 'em a good ways ahead.

"Suddenly we hear a scream, an' another, that starts off full power, and dies abruptly right in the middle. We head for the commotion on the run, and see the whole mob coming lickety-split down the grade, as though the

devil himself were after him.

"We push our way through, trying to keep our feet in the rush. We want to find out what's struck'em like that. There's just a scattering of stumbling figures up ahead. One poor fellow trips, gets up, looks back, and starts to run again. Right in the middle of a leap, he stops short. I hear a yell of agony in my disk, and then he falls to the ground, a twisting, glowing, shapeless mass. Scattered all over the floor of the tunnel up ahead are more little heaps that once were our contrades.

"Up at the mouth of the tunnel stand a group of figures, all in space-suits. It was too dim to see what they were, or what they were doing. But every once in a while the side wall would turn a bright red, and just crumble.

"Well, at that I saw red too, and I started for them. I was too mad to think things out. But Swithin, he just grabbed me, and pulled me flat against the wall. 'As I

thought. Police,' he says, calm as ever. I never did see a fellow who could keep his temper the way he can."

CWITHIN spoke up in his cold sardonic way. "Lose

D temper, lose everything.

"Righto, my fine bucko," Bill agreed heartily, "but you can't expect a guy with red hair to be a bloomiv icide. Well, as I was saying, Dore drags me back with him to the great round slab. It was down, closed tight. We tried to release the spring, but it wouldn't budge. The scared fools inside had jammed it. We pounded and yelled, but it wasn't any good.

"Meanwhile we could just make out shapes moving cautiously down the tunnel. We'd be caught like rats in

a trap. Dore whispers to me, 'Better hide.'

"But where? That was the question. Already the Police were coming down the staircase we had built, their ray-beams flashing around. We hustled away from there, I can tell you, keeping close to the wall, until we found a little crevice where a rock had smashed through. We crept in as far as we could, and waited, our hearts way up in our throats.

"That unholy bunch went straight up to the red seal, just as though they knew where it was all the time. It's

a puzzle to me, all right,"

Garry said simply. "Jeris Farr showed them the way."
"What!" Purty exploded. "How in the name of the
Seven Virgins did that skunk tie up with 'em? He's
deader n a door nail."

"It's my fault he isn't," Parker confessed bitterly.
"But go on with your story; I'll explain later."

"Well, I'll be mistaken for a cross-eyed cat," Bill wondered, "that ape still alive! That leaves just one more score for me to settle, and this time there'll be no resurrection either. Not for him, and some others like him." "You mean Sadakuch!?" Naomi couldn't help but in-

terrupt.

"Exactly!" There was a flat finality to Bill. "But to resume my little tale of woe. It was the blessed Sadakuchi himself, who spoke up in that sweet snaky voice of his. 'Rebel Workers,' says he, 'open the seal, and quickly.'

"Not a sound from within. He steps back a bit. 'If you don't open on the count of three, I'll instruct my men to blow a hole through with their ray-guns. One—

men to blow a hole through with their ray-guns. One—two—!"

"From where we are, we see the rock lift up in a swift rush. Our gang had surrendered. I was grinding my teeth down to stumps, and even cold-blooded Dore was

"Was not," denied Swithin, "Never use oaths."

"Maybe not," retorted Bill, "but it sounded damn suspicious. Anyway, the troop of Police march right in, leaving a squad at the entrance. We couldn't budge, for fear of having the whole caboodle on our necks. And it isn't pleasant crouching in a two by four cranny in spacesuits, either.

"Just as my body begins to itch all over, and my feet have stopped belonging to me, the yellow dogs came out again. Sadakuchi gives an order; the rock slides into position, and while we feel the goose flesh creeping on us, one of the men points his ray-gun directly on the spot where the hidden spring is, and fuses the place into a molten mass. The Colony, all who survived the first slaughter, are entombed! "I went wild at the senseless cruelty of it. I could see our comrades dying in there, slowly. If Dore hadn't grabbed me in time, it would have been taps for yours truly. I was just crazy enough to jump 'em.

"I saw one of the figures whisper to Sadakuchi. I couldn't hear what he said, but I heard the dammed Aristo's reply. We'll get them later. We return to the cruiser now, men.' And just as though they were on parade, they goose-stepped up the gangway, leaving the place deserted.

"We crept out of our hole, stretched our cramped limbs. 'Now what did he mean by that'?" I asked my

partner

"'Meant us!' Swithin retaliates, short and sweet.

ist?'

"'Don't know, but he does.' And that's all I can get out of him.

"We hasten over to the seal, try to open it. No go. Shout, pound, not a sound. Like the silence of the tomb. No use hanging around. The Police might be back any minute. Can't go out the usual way, we'd be sure to be caught. So we scout around in the outside chamber. Nothing doing. We creep up into the tunnel, and feel along the walls—don't dare use our flashes—until we find a little opening. Result of the original moonquake, I suppose. We wriggle and squirm, almost rip our suits, until—blam—we're out on the cold black surface. That was about three hours ago, I should judge.

"We just lay here, trying to figure what to do, and not making a hit of it. Then you came along, and we jumped you, thinking you were Police. Now you tell us, Garry, how, why, and where? We're just exploding

to know, aren't we, Dore?"

"Yes."

Parker told them, rapidly and succintly, to the accompaniment of loud ejaculations and profane swearing
from the irrepressible Bill. He crowed with delight at
the near capitulation of the Aristocrats, grunted explosively at the tale of Garry's capture, sobered at Rade
Perrin's great sacrifice, and then, as the story came to its
seemingly hopeless close, he refused to be depressed at

"We'll lick 'em yet," he avowed. "First thing we better do is take a squint at the ship, and see if we can't move her out of harm's way."

"All right," said Garry, "but we'll have to be careful not to run into the Police."

"Okay, lead the way, brother."

their present precarious position.

CHAPTER XXV

The Great Strategy

THEY retraced their steps, taking advantage of every jutting rock to avoid possible observation. They came out suddenly on the great crumbling plain. Far to the east, a line of blazing light, the terminator, showed the advancing lunar day. It would be only a matter of hours now before the entire plain would be bathed in the brutal glare. Life outside of shelter would then be impossible.

Parker searched eagerly for the sight of his ship.

Off to one side, angling west, and a little north of them, were little flashes, momentarily illuminating the ground,

moving and bobbing. Then a beam struck high, flashing over a smooth curving surface. A dozen beams followed suit, playing like brilliant searchlights over the hull of the liner.

A simultaneous groan arose from the watchers. A

sullen despair gripped.

"Look what they're doing-oh-oh!" Naomi wailed. By now the liner was a shining apparition, on which tiny blobs of red sprang into being, grew larger and larger, melted and ran indeterminably into each other, until the great craft was a blazing, fusing, twisted wreckage, revealed starkly against the black monotony of the heavens.

"The dirty yellow hounds," Bill swore, "to deliberately ray the old boat into junk. We're sunk! No way to get back, and not only that, but they know you're here

"That's fine," came surprisingly from Garry.

"Yeah?" Purty growled disgustedly, "what made you turn into a fair haired Pollyanna?'

"Why, it's simple enough. There was one thing had me worried all along.'

"And that was-

"That Sadakuchi would decide to return to Earth immediately.

"It sure would have been tough," Bill wailed sarcastically, "leaving us here to release the Workers, and shoot back with another load of stone.'

"It certainly would," Garry agreed calmly, "for you see, there wasn't an ounce of fuel left on the old ship

to take us back." "Wha-a-t?" Purty yelled. Even Swithin emitted a

"Exactly. So you see it was a bit of good luck for the Police to find our boat. It was no good to us anyway. And now they'll have to stay and hunt us out. They daren't leave before. As far as they know we might have brought back with us more seeds, more machinery, and unloaded it already."

"I'd like to know what good that does us," Bill retorted stubbornly. "Unless-," he peered suddenly at the faint shadow that was Garry, "you're thinking of

capturing the rocket-cruiser."

"That's just what I have in mind."

"How?" Swithin interposed with his usual directness. "Listen," Garry spoke low and guardedly, "we can't see anything now, but I want you to visualize the lay of the land here clearly. You remember that the entrance to the cavern we colonized is in the face of a tremendous cliff rising sheer some fifteen hundred feet from this plain in front of us. That cliff runs almost due north and south where the cave mouth is, but about a half-mile to the east it suddenly turns at right angles and juts out to the north for approximately another half mile. Then it turns sharply again, and resumes its original direction."

"Right you are," broke in Purty the garrulous.

"We are now just at the corner made by that second turn, In other words, you, Purty and Swithin, worked your way in a wide semi-circle when you escaped. The cave entrance is south-west of us, with Sadakuchi's ship a hundred feet north of it. That brings it also a little over a half mile from the precipice here, that faces the west. Is that clear?"

A murmured chorus of assent answered him.

"Remember how, when the sun was just rising, the shadow of this height behind us stretched out far across the plain, reaching beyond the cavern mouth, so that we could watch the terminator slowly creep along the level out here to our left, while still the ground for a half mile in front of us as we stood in the opening was black with impenetrable night? I just thought of that, and a scheme occurred to me. Now listen carefully." Garry's voice dropped lower still. Long and earnestly he talked, while his companions listened intently.

"Oh boy," Purty exploded with delight as Parker finished. "That'll sure do the trick, or I'll eat my shirt." "But it means we'll have to divide our party," Naomi

was tremulous.

"I'm sorry dear, but we'll have to. You and Swithin will start things going, and Purty and I will finish up." She drew a deep sigh, then bravely: "Very well, when do we commence?"

ARRY glanced once more at the slowly moving GARRY glanced once more a rapid calculation. "You see that whitish boulder jutting up against the light?" He pointed to the east. "When the sun just touches that.'

Never did time pass so slowly as it did for the next hour. The sharp division between blackness and light, between frigid cold and boiling heat, crept nearer and nearer. At last the blaze of light touched, overlapped the mark.

"Now," snapped Garry. Something rose in his throat and choked him. He was sending his beloved and his friend out to what probably would be their destruction.

The two waved hands in silent farewell, forgetting they could not be seen. The faint scuttering of their progress sounded in Garry's and Purtell's disks for a moment-then silence. Garry was tempted desperately to shout, to call them back from the insane adventure. But the cry died in his throat. It was either this way, or they might as well rip their space-suits and perish suddenly, peacefully. Garry vainly strained his eyes after the vanished fig-

ures. Suddenly two blobs of light danced fantastically over the moonscape, a hundred yards to the north. They had turned on the ray-beams!

The elongated ovals swerved in wide circling swaths, interlaced, and swung again-unceasing in their regu-Garry gazed anxiously in the direction of Sadakuchi's

ship. It was invisible. Nothing stirred! Nothing seemed to be alive on the dead blistered Moon except themselves and those dancing beams out yonder. Minutes passed, and still the blackness was unbroken. Parker was filled with a quick anxiety. He cursed

silently, but fiercely, the bundering stupidity of Sadakuchi. Was the man mad not to have guards posted? All his carefully laid plans were threatened with ruin by such lack of elementary precautions on the part of his

Despairing he turned again for another look. The time was getting perilously short. Then his heart gave a quick bound. Purty was whooping near him. "Yoicks hulloa-the blithering fools-they've bit!"

· Far off, a momentary gleam stabbed the ground, wavered a bit, then slithered along straight in the direction of the steadily swinging circles of light. Another darted into being close alongside, then another and another, until the distance was alive with running beams. Garry counted aloud: "Two—four—six thirty one. What would you place the complement of the cruiser at, Purty?"

Purtell thought awhile. "About fifty, I should say."

"Leaves about twenty on guard, eh?"

"Yeah, about. Sadakuchi's a wise bird, but what the hell—we're a damn sight smarter."

By now there was no mistaking the purpose of this nocturnal excursion on the part of the police. The beams were progressing rapidly, relentlessly towards the still circling beam-rays.

"Time to get started, Purty," Garry took a deep breath. "Only hope Naomi and Dore don't slip up.

God, if they get caught!"

"Don't you worry about them," Bill encouraged him.
"Swithin's got guts—and brains, even though he's a
mummy when it comes to talk; and Naomi—say, I don't
have to tell you about her."

Garry's heart ached within him, but: "Come on then,"

he said simply.

With great bounds they fled back along the base of the tremendous overhang, back toward where the cliff turned west again. The lead soles that weighed them down had been removed earlier. It was a wild flight in absolute darkness. They smashed recklessly into bruising rocks that almost tore their space-suits wide open; they stumbled and crashed with bone-shaking jars. But ever on they sped, heedless of everything except their goal. Now they had reached the turning, were speeding toward where the police cruiser should be. If only they didn't overshoot their mark in the tangled desolation. Over their shoulders they saw the moving stabs of flame that showed the steady advance of the Police. The two lone ovals were moving now also, slowly, tantalizingly, back to the jumbled ravines they had just quitted.

"Wonderful girl," Garry breathed to himself, "she's working it perfectly." Not for an instant did he think to give Swithin credit for the splendidly-timed man-

euver. But then, he was in love!

He felt Purty's hand plucking at him. "There, over there, see it!" A gaunt black shape loomed to one side, silhouetted against the dim starlight. He stopped short, measured the distance as best he could.

"Let 'em have it," he whispered.

Two tiny slivers of light flicked against the ground, moved stealthily toward the silent ominous ship. The ray-beams were shuttered down to pinholes. Back and forth they played the beams, taking care to keep them well away from themselves. Nothing!

The grim cruiser was black, aloof.

GARRY shot a hasty glance backwards. The two little gleams were gone; but the massed flashes were moving swiftly, purposefully toward their former hiding place. Far off, but palpably closer, flamed the inexorably approaching lunar day, in which no man could live. That part of the maneuver was a complete success. It was up to them now to carry on!

Purty grumbled under his breath. "Hell, what sort of dumb-bells were left behind. Can't they see us?"

"Sssh," Garry whispered tensely. "They're coming out now."

out now.

A stabbing ray shot suddenly athwart their own flickers. They were ensconced behind a convenient boulder, hiding while they flashed the tantalizing gleams.

A voice, faintly tinged with an Oriental flavor, came

through Garry's communication disk.

"Who's there?"

The crouching pair snapped off their ray-beams, kept silence.

The voice came louder. "Who's there, I say? Speak,

or I'll turn the ray-gun on you."

The silence of the grave, while the questing ray darted frantically over the jumbled moonscape. They could hear the guard muttering, then a blinding blue glare furrowed through the spot where they had cast their rays a while before. The ground boiled up, showing a molten channel. The disintegrating ray!

The hidden pair flattened themselves into the dusty

pumice. It was not their move yet.

"Here, what's up?" A voice, gruff with command, resounded in Garry's ears.

"I just saw some beam-rays out there, sergeant," the first voice explained respectfully. "I challenged, but there was no answer. Then I let them have it."

The sergeant swore. "Must be those other damned Workers that got away." He raised his voice. "Fall in, guard!"

A darting crisscross of rays spattered the plain.

"Scatter, men, and after them. Don't let them get away, or I'll have you all sent to an Idlers' Colony."

"Run for it, Purty," Garry whispered. Two black shapes rose silently, and shot off for the precipice from which they had just come. Behind, the searching rays turned the ground into a pool of light. They were hugging the foot of the north-south cliff as they ran.

Half way to the western steep, the racing pair opened their beam-rays, held them at an angle so that the falling ovals would move alongside of them, seventy-five feet away. Blue darts of death whipped the ground, showing they had been discovered.

On they flew, the deceiving lights paralleling their wild course. A towering crag loomed high overhead just where the ridge changed direction. They turned too, dashed north for a moment, the dancing disks from their rav-beams directly shead of them now.

"Douse the light," Garry ordered. The fitful gleams quenched utterly, leaving the black around them even more intense than before. To the following police it was as if they had dived into one of the numberless ravines that cramied the height.

The wave of following rays lit up the middle distance,

foaming like a strong tide toward them.

Garry laughed happily. "We've got them now. Swing around to the back of the ship, Purty."

"Okay, old son,"

Off on a trot they went, back along the road they had just sped, careful to keep out of range of the betraying illumination. But the Police were hot on the scent, running toward the cliff without a swerve, confident in their belief that the fugitives were trying to hide in the guilies that scarred the base of the huge overhang.

"If only Naomi and Dore don't miss out," Garry

panted.

"They'll make it," Purty was positive, as they skirted the cruiser.

In the distance, the search rays of the Police shot

along the base of the height, methodically covering the ground with a white glare. The two parties were con-

verging.

To the north the blaze of the lunar day had already crept on and past the ship's station. Far behind, westward, a thin band of light marked the end of the ridge's long shadow, joining in an irregular angle the terminator cutting straight out from the edge of the cliff. Even as they stared, the ribbon widened in both directions, away from and toward them, as the yet invisible sun soared higher in the lunar heavens.

CHAPTER XXVI

The Plan Works!

THEY were creeping cautiously around the ship to the air-lock, keeping close to the side. A dark shape, barely discernible, leaned against the outer seal, humming a tuneless Oriental melody.

Garry pressed Purty's arm-the agreed signal. Two forms launched themselves simultaneously through the

airless night.

The unsuspecting guard never had a chance. He went down in a twisted heap that lay curiously silent. Purty caught up the ray gun with a grunt of satisfaction:

"This is something like. Bring 'em all on now." "Shut up, you blithering ass," Garry whispered, as he sought desperately for the control button that opened

the air-lock. "They'll hear you inside."

His questing hand found what he sought. The seal yawned black before them. They crept quietly in; stationed themselves before the inner door, every muscle

Garry's finger was on the button. Purty's ray-gun was pointing straight ahead.

"Ready?"

"Right; let's go!"

The door slid open with a little rush, and the waiting men catapulted themselves into the brightly lit interior of the cruiser.

Yoicks-hulloa; up and at 'em," Purty's irrepressible

war-cry resounded in his helmet.

Three men started up in amaze at the sudden irruption, Two of the Police, and-Jeris Farr! Even in their bewilderment, the vellow men reacted with the swift discipline of their kind. Their hands shot to the rayguns at their belts.

But Purty's weapon flamed, and the nearer one crisped into smoking ruin. Garry's headlong rush carried him right up to the other police guard just as his gun swept out of the belt. Parker's mailed fist shot out, caught him flush on the point of the chin. Down he went with a crash. Garry did not even falter in his stride as he made for Farr.

That worthy had recovered from his surprise. With a stream of execrations he flung himself upon his enemy. his swarthy face distorted with rage. A long-bladed

knife gleamed in his right hand.

Garry sidestepped just as the blade ripped downwards. With a swift motion he caught the uplifted hand and wrenched. The weapon dropped clattering. The next instant the two were rolling on the floor, locked in furious combat.

Purty ran to the aid of his friend, but just then he observed the guard that Garry had knocked out, twisting his ray gun around from under him to bear on the struggling pair. Up went his own tube, and the yellow

man collapsed into a pile of cinders.

Somehow Farr managed to loose Garry's hold, as they rolled near the open air-lock. With the bound of a panther he was on his feet again, saw Bill's weapon pointing deliberately at him. A single animal scream, and he was caught in the outrush of the air, dived headlong through the portal, out into the airless reaches of the moon-without a space suit!

Garry shot after him, but he had been swallowed up in the fathomless night.

"Let him go," Purty shouted in his ear, "He won't last long. That's the end of Mr. Jeris Farr!"

A joyous hail reached them from the outer dark. Naomi's voice! Immediately two figures sprang into being in the glow of their lights.

Naomi was sobbing unashamedly, "Thank God! Thank God, you are alive. I was afraid you had been killed.'

Clad though he was in his suit, Garry pressed the similarly attired girl to him. A fierce wave of exultation swept through him.

"You were marvelous. How did you elude the Police?"

"It was awfully simple," she laughed through her tears. "We just slipped into the ravine, turned off through a side gully, and ran back here as fast as we could. The boobies are still hunting for us."

Far off, two flickering streams of light moved toward each other. The two contingents of the Police had met in their futile searchings.

Swithin had not said a word thus far. Now he spoke, phlegmatic as ever.

"Must release Workers at once. Day is almost on

Sure enough, the great white blaze was almost upon the ship on its western side, as the cliff's shadow slowly shortened. Waves of heat were already beating around them,

Recalled to his senses, Garry rushed into the ship again, pushing Naomi before him. He picked up a fallen ray-gun, came hurtling out again, and thrust it into Swithin's hand.

"You and Purty get down that tunnel as fast as you can, cut through the smashed air-seal. If any of our Colony are still alive, bring them out. If they aren'tbut God, they must be!" He ended in an agonized cry.

They went without a word, out into the enfolding night. Heavy hearted, Garry pushed against the waning current of air into the interior of the ship, closed the lock behind him. There was little enough air left, but he was confident that the generators would soon make up the deficiency.

WITH one accord the lovers ran to the periscopes in the control room. The blaze of day was impinging on the metal sheath of cruiser, creeping relentlessly over it. A few ray beams of the Police danced on the face of the cliff. Most had disappeared within the tangled ravines. They were still searching, blind to their approaching doom. "What an idiot your Sadakuchi is," Garry exclaimed. "Doesn't he see the trap into which he has been led?"

Naomi drew herself up in indignation. "My Sad-

akuchi!" she exclaimed, "Why, Garry-". Then she laughed softly. "That's why I decided to take you, dear."

He cursed the space-suits that prevented him from gathering her into his arms. "Well, your Sadakuchi won't trouble us much longer," he said lightly. "What

a surprise is waiting for him."

"I'm not thinking of him any more," Naomi's voice was troubled. "I'm worrying about those poor people down in the cavern. Are they still alive—or did that beast kill them deliberately before he sealed them in?"

Garry's brow darkened. "We'll know soon enough," he sighed.

Then there was silence as they strained at the periscope. The lunar day was almost full upon them. Only the side of the cruiser that faced the cliff where Sadakuchi still searched was yet black with the blackness of night.

They were desperate with anxiety now. What was holding up their friends? In a few minutes it would be too late. The path from the tunnel to the ship would be a seething cauldron of heat, through which it would be impossible for a human being to penetrate more than a few yards without collapsing. Had Purty and Swithin been unable to blast their way through? Had they found the immured Workers butchered?

"Hurry! Hurry!" Garry found himself whispering. Now the ship was bathed in the fearful glare. A luminous space was slowly widening between them and the blackness that crept back toward the precipice whose shadow it was. The top of the beetling cliff was a luminous line.

"Garry, where are Bill, Dore? Where are the others? What has happened? A minute more and they

will be cut off from us."

Garry groaned. There was a bunching of the lights off there. Sadakuchi had at last realized his danger. They were moving, coming rapidly toward them. And he did not know the mechanism of the terrible disintegrators that stuck their ugly snoust in service rows out of the sealed ports. If the Police reached before that space of boiling heat was too wide for them to cross—!

Of course he could flash on the rockets, escape. But that would mean abandoning Purty, Swithin, the Workers. It was not in Garry Parker to scuttle away.

His agonized eyes turned back to where the edge of the infernal glare was just touching the cavern entrance. God! Would they never come?

The Police were half way across the great waste, racing along with the fear of death in their hearts,

"Poor fellows!" Naomi had a qualm of pity. Even Garry sympathized a moment, then he hardened his heart.

"They'd kill us in cold blood, unconcernedly, if they had the chance. And our own people, they too seem doomed. Purty—."

He broke off suddenly, and stared as if he had seen an apparition. A figure burst out of the cave-mouth into the tortured glare. He was staggering along under a heavy weight. Another figure with a similar burden, and then an inundation of limping grotesques.

"The Workers. They're coming! Oh, Garry, do

you think they'll make it? It looks like a furnace out there"

"Why don't they run, the fools?" Garry almost screamed his impatience. "They'll shrivel to death if they don't."

"They're carrying something heavy. Look how they stagger. What could it be?"

Parker shook his head; he didn't know. Idiots, not to drop those mysterious loads. There was nothing he could do but wait, and watch their struggles.

On came the weighted men and wonien, stumbling in the insane heat. Garry clenched his bands, until the blood came. Naomi was gasping with the aching pity of it. On and on they came, falling, helping each other up, blindly tottering, yet hugging their strangely precious burdens as though their lives depended on it. The foremost figure lurched past the stern of the ship, out of range of the periscope.

Garry ran to the air-lock, and thrust it open. The space-suited individual tottered feebly in the chamber, said something with strangely dried, cracked voice.

"Hey, close—the—lock—damn—quick. Look—" It was Purty. He dropped an irregular gleaming block of stone on the metal floor. It was the ray-stone of Tycho!

Garry saw it all in a flash. The crazy fools, to risk their lives this way! Yet he could not help a sudden swelling pride at the bravery, the desperate courage of these men, welded together now by the suffering they had undergone. It was magnificent!

He closed the great inner seal, even as the chamber filled with the weary, half-crawling Workers. One by one they dropped the precious stones; one by one Parker passed them quickly into the ship, where Naomi, all womanly, ministered to the gasping parboiled colonists.

WHEN the last straggler had come through, Garry shut the outer door and clamboring over the vast pile that choked the air-lock, let himself in. Purty and Swithin had struggled out of their suits.

and were grinning sheepishly.

"You idiots," Garry stormed, "Why did you do it?"
"Needed the stuff when we got back to Earth, didn't
we?" Bill wanted to know. "How else could we lick
the everlasting tar out of the Aristos?"

"What was the matter with getting it later, instead

of imperiling all your lives?"

room, the others after him.

"Didn't know if there would be any later," Bill grinned. "Where are the Police?"

Garry started. He had forgotten completely about 'them. "Good Lord," he groaned, "I'm the prize idiot to stand here gabbing." He leaped for the control

His eyes were glued to the 'scope as they rushed in, his forefinger tense over the button that would start the rockets into flaming life. Then his finger relaxed, his hand dropped away. As he turned, they could see the paleness, the horror on his countenance.

"What's the matter with you?" they chorused.

"Look for yourselves," he said simply, and as though drawn by an invisible magnet, was back again at the eyepiece. The others rushed for the auxiliary

Outside, the plain was seething in the violence of

the lunar day. Five hundred feet beyond, the terminator had advanced, the dread line between boiling heat and cold unutterable.

A swarm of little figures were dancing frantically almost on the thin edge. They seemed like marion-ettes in a particularly jerky pantomime. A few would made a sudden rush into the inferno, slow down to a sudden halt, and retreat in wild staggerings. And every instant the blazing line in its slow march forced the doomed band further and further back.

A form sprang out from the huddled mass. He was evidently haranguing vehemently. Garry could see him gesturing across the boiling desert toward the space ship. The despairing wretches did not budge.

The leader threw up his arms in a final angry gesture, spun around, and rain directly into the inferno. Garry watched him breathlessly. He felt sure that this was Sadakuchi.

The ballooning figure kept on its course with unfaltering stride, though the onlookers knew that by now the air within the suit was at furnace heat. On and on he came with never a stagger. It was suicide, but it was magnificent.

But he was more than half way across the flaming waste, the metal fabric of the suit dazzling with burnished glare. Garry's excitement mounted momentarily. Would he make it? There was a slight possibility now. There was no break in the ungainly leaping. Parker vowed that if the runner reached the ship through that hell, he would rescue him, regardless of the consequences.

Even Purty was stirred by the gameness of the man. "Come on there, guy," he implored, "just a little more and you'll make it. I don't care if you are a damned Police, you're good."

But the runner was staggering now. He fell, and a groan went up from the watchers.

"He's getting up again," Purty yelled hysterically, "look at him go; come on, you. Damn, he's down. He's up. Whee, what a guy, what guts." He was hoarse with excitement.

In a last desperate attempt, the lone figure forced itself across the burning pumice right up to the very side of the ship. Then he collapsed, this time not to stir again.

"I'm going to get him," Purty threw back over his shoulder as he darted from the control room.

A moment later, they saw him, ensconced in spacesuit, dashing out of the air-lock, heaving the limp form on his back, swiftly returning.

"Here he is, see if you can't brîng him to," he almost bellowed at Naomi. She knelt before the silent figure, undid his helmet with deft fingers. A blast of superheated air and mingled steam shot forth in clouds from the interior of the suit. Slowly the vapors cleared, disclosing a hideously swollen mass of raw flesh, barely recognizable as a face, from which the skin had peled, was hanging in long shreds.

She applied a soothing cinturent to the horribly burned areas. At the touch of her cool fingers, the eyes of the unconscious man fluttered, opened with manifestly painful effort. Dark, bead-like pupils, convalsed in agony.

"Sadakuchi!" The name ripped from her. At the

sound of her voice, Sadakuchi's eyes opened wider, and the light of understanding came into them.

The rawness of his swollen lips moved, sounds issued. Mere murmurings that grew in resonance under the driving impact of his will.

"Naomi—you have—betrayed—your caste. I want you—no more. These Workers—don't—let them touch me—an Aristocrat. I'll die—rather than be saved—by them."

The ferocious effort exhausted the last thin strip of vitality. Without a groan the voice subsided, was stilled.

Sadakuchi was dead.

IN SPITE of themselves the Workers rendered involuntary homage to the unbending iron of this haughty Aristocrat, who had died true to the narrow traditions of his caste, scornful to the last of those he deemed inferiors.

Purty summed it up. "Hell, he was a man according to his own lights."

Outside, the beating light had surged right up to the very base of the cliff. Little huddled groups dotted the fierce desert plain, writhing in their last agony.

The Police had died to a man! The invasion of the Moon had failed disastrously.

Garry took command, stilled the excited babel of the Workers.

"We've won out so far, beyond our utmost hopes. But there is much more to do. The Moon is definitely not for us. We move now to conquer the Earth, to force the Aristocrats to submit to our demands, to grant equal freedom to all the Workers. Into your hammocks, everyone, we start at once."

A great cheer burst forth, to be drowned by the louder roar of the exploding rockets. The great cruiser was a silver projectile, flashing through space.

Fifty hours later a startling message flashed to the communication disks of the five World Councillors from the gleaming shape hovering over the Pacific.

"Your emissary has been defeated. I have returned. Unless I receive your submission to my demands within thirty minutes I shall commence the destruction of the earth. Garry Parker."

In twenty of the thirty minutes the epoch-making answer ripped through the ether: "Your demands acceded to in full. We recognize the equality of the Workers with the Aristocrats. We abrogate the Caste Law. We ask that you enter immediate conference with us to take over from us World Control. Hokusai of the Samurai, for the World Control. Hokusai of the

The rest is history. Every schoolboy has thrilled at the dramatic representation, on the Education Screens, of the soul-stirring event when Garry Parker, still in the soiled and tattered pilot's uniform, stayed the rising tide of massacre and butchery with the historic announcement of the Great Compromise.

Already the rumor of the defeat of the Aristocrats had spread with lightning swiftness throughout the world. Already Workers, crazed with their new freedom, had disarmed the scarlet-clad Asiatics, dazed and leaderless. Already in Berlin, in Moscow, in San Francisco, growing mobs were gathering in the lower levels, and the cry of "Kull' Küll' Küll very Aristocrat!" was roaring upward to shatter the nerves of the cowering Masters, stripped of their power.

History was about to repeat itself. Again the oppressed, the galling yoke once more removed from their weary shoulders, were about to embark on a debauch of carnage, of arson and rapine, and murder, in a blind revenge that would sow the seeds of destruction of the very triumph it celebrated. History was about to repeat itself, but a strong and wise man stood in the way.

In every communication disk the sudden command sounded: "To the assembly halls, Workers, to the assembly halls! The deliverer is about to appear to you. Garry Parker will talk to his people in half an

hour. To the assembly halls!"

And in Africa, in Europe, in America the mobsurged to the great auditoriums. In Asia, and in far Australasia the vast halls filled. That name had already taken on the magic power that it still bears. A great chime sounded around the world. All Earth was silent. The teeming millions sat and watched the gray screens.

The screens grew luminous with the warning light. The cloudy mist coalesced. A man stood before them, and looked out with eyes that glowed with a great vision. Tall he was, and broad shouldered, his hair blond above a bronzed face that was lined and weary with struggle. His gray-green airman's livery was in rags, its color almost hidden by the grime and dust of two worlds that was upon it. But an aura of power and dignity seemed to invest that torn uniform with a regalness that the silk robe of a World Councillor had never borne.

"Workers of the World. We are free."

He paused and a vast murmuring answered him. He raised a hand for silence, and the torn sleeve dropped back from the arm, revealing a livid, scarce healed burn.

"We are free," that calm, vibrant voice began again, "from the domination of the Aristocrats, from the fear of the Idlers' Colonies, from the harsh rules that they have inflicted upon us for so many weary centuries."

The grave eyes seemed to hold each of the millions that faced his image with resistless strength, checked the cries of "Kill; Kill!" that surged to the lips of the emancipated slaves.

"From to-day, from this moment forward, we, each one of us, the lowliest of us, is equal to the highest born Aristocrat.

"Equal, I say." The word pealed round the world. "Equal, not superior. For a Society founded on the proposition that any man is by even the shade of a hair the superior of another, that one man, by so much as the paring of a nail is entitled to more of privilege, of opportunity, than another, cannot long survive.

"We are free from slavery to a cast. We are free to live our own lives, to pursue happiness as we may conceive happiness. We are not free to deprive others, even though they be of the caste that has so long exploited us, of the right to pursue happiness as they conceive happiness.

"We are free from the obligation to serve a Master cass. But we are not free from the obligation to serve the social organization of which each one of us is a part. We are not free to refuse to do the thing for which we are fitted, to contribute our share to the sum total of the labor of the world, that each of the other dwellers on the globe may share in the best that the genius of man may devise, that the work of man may produce."

Garry Parker turned and beckoned, and another figure came upon the screen. A girl this, a slender, beautiful girl. She was pale with the realization that hundreds of millions were gazing at her. But her eyes clung to the man, and she did not shrink. She wore the white robe of an Aristocrat, but it swung open, and the watching workers could see the uniform of a Worker beneath, shredded and soiled as Parker's own.

"Naomi of the Fentons, my people." The Leader's voice vibrated with pride and love. "An Aristocrat. But had it not been for her quick and live intelligence, I should be a shrivelled corpse on an island in the Pacific, or a heap of ashes on the floor of the Execution Chamber in New York's Gaol. For half a year this Aristocrat has fought by my side, has adventured across the cold and dark of interstellar space with me, a Worker, has agonized that I might live, that I might bring back from across the void the power to free you from slavery. Without her aid I should not, could not have accomplished your deliverance.

"Let that be a symbol, and a lesson to you, my people, Just as I, a Worker, needed her, an Aristocrat, to accomplish the great task that was given into my unwitting hands, so do we, the Workers of the World, need her people, the Aristocrats, to accomplish the great task that lies before us. Were we to sweep every Aristocrat from existence to-day, to-morrow our world would seethe in chaos. For hundreds upon hundreds of years they have learned the vast and intricate science of government, of organization. To-day that vast and necessary knowledge is theirs, and theirs alone. We need them, and they need us. Together, we can, we shall, work for a better, a fairer, a happier world.

"To-night, I wed this Aristocrat. Let our nuptials be a symbol of the union of the Workers and the Aristocrats of the world in one harmonious whole."

No need for us to continue. Look about you at this happy world of this glorious twenty-fifth century and you will see the result of that speech, the answer the Workers made to Garry Parker's appeal. The long tale of what followed belongs to the historian, the economist. We have tried to bring to you Garry Parker, Naomi of the Fentons, Bill Purtell, and the others of that legendary band as warm, human, living beings of flesh and blood, rather than the glamorous, almost legendary figures they have become in the century since they loved, and fought and won. If we have succeeded in this, then we count the long and arduous task well repaid.

The Superman of Dr. Jukes

(Continued from page 751)

distance. He sat up, and in the act of doing so saw the Killer. But was this Killer Mike, this naked, sevenfoot giant whose silvery flesh seemed to seethe and churn? Frazzini was a brave man, he possessed undoubted physical courage, but in this situation was something so strange, so weird and uncanny, that the heart fluttered in his bosom, the blood ran cold, and for the first time in his life he really understood the meaning of the word fear.

In the ever deepening dawn a Mexican lad passed with a string of burros and stared fearfully at the two figures on the crest of the hill. "Madre Dios!" he cried. His ragged heels beat a frightened tattoo into the sides of his mount as he urged it by at its best speed. Where the narrow trail crossed a dirt road a half mile beyond, he met a car full of armed men and a woman. senors," he said, in answer to their questions, " Isaw two hombres." He crossed himself devoutly. "One naked. Surely the devil himself! And the other But the armed men and the woman were running up the

trail down which he had come.

Madness, or perhaps it was a clarity of vision beyond that of earth, had the Killer in its grip. The acceleration of every sense and faculty was sweeping swiftly towards an incredible climax. Earth and sky were shifting, changing. The thoughts of Frazzini beat on his ears. Who was this Frazzini? Frazzini was his enemy. But what meaning could that phrase have for him when the whole world was heaving, churning. His glowing eyes chained those of the other. "Be still," he commanded: Frazzini was silent. Even his thought was stilled. It was good to be free of the clamoring noise that was the other's terrified mind, twisting, turning.

Even as it ceased, he forgot Frazzini's existence, for Frazzini disappeared; the rugged hillside, the sweep of brown landscape going down to the river and sweeping up again, miles away, to the Mammoth Range, was also blotted out, and he was looking into a new world, another dimension! It was an ethereal place, a place of indescribable loveliness, and far away under the rays of an emerald sun formed the spires and domes of a mystical city. Out of the crystal clarity of western sky, just after the sun has dipped below illusive hills and before night comes to mantle the desert, seemed this city fashioned, and almost as impalpable and remote-a crystal city in an opalescent world.

Was it the figment of a delirious mind, or did it actually exist an octave or two beyond the vibration of earthly matter? If the latter were true, then only the Killer's vision achieved a note high enough to glimpse it. For his body never passed beyond the fleshly rhythm that chained his feet to this world.

Though he ran like the wind and came to the environs of that mystical city, though he saw celestial beings of a god-like stature and beauty, and wonders indescribable, though he wandered through the space they occupied, everything remained that to him-space, and nothing more. Sometimes things were below him, sometimes above, and sometimes all around; but wherever they were, he could not touch, he could not handle, he could not make himself real, and in the end they faded. As the accelerating fluid in his system reached its weird climax and began to recede, it was with devastating swiftness. The giant body shrunk in on itself, the eyes became burnt out coals. Searching for the vision he had lost, the mystical city always beyond the horizon, hungry and thirsty and mad, the Killer wandered through the desert, until at last he stumbled over a mound of earth and lacked the strength to rise.

THEY found Frazzini sitting dumbly on the hillside. But the Big Shot only stared at them uncomprehendingly. "What's the matter, chief?" begged his henchmen. He did not answer. His wife who had come to Tucson on the second plane, sank beside him and took him in her arms. Forgotten was her bitterness. "Tony," she wept, "Tony! Don't you know me, dear?" But no recognition or intelligence would ever look out of those blank eyes. The perverted genius that would have made the very government of the United States a department in an empire of vice was dead-and ironically enough, the man who had willed this mind, this genius to cease, and who alone could bid it again to exist, had forgotten the fact, was himself a madman.

But though they found Frazzini, the Killer was never found. Rewards were offered for him, dead or alive, the desert was scoured, but all in vain. Once a group of searchers paused at an old Mexican woman's abode, This was near the New Mexican border. No, the old woman said, then tended the sheep, she and her son out there, but they had never seen any one.

But she told them nothing of the one great experience of her life; of how her son had died from a snakebite the week before and in her loneliness and grief she had prayed the Virgin Mary to restore him to her. Nor how she had dreamed that this prayer was answered, and when she went to the grave, it was to find a man's body lying across it. He did not look like her son, it is true, but she was old and superstitious and persuaded that a miracle had happened. So for her the dead had risen, and the Killer became her son. Only somewhere in his befogged brain remained the memory of a celestial city (the old woman who understood English and who listened to his mutterings, thought he talked of the heaven he had left to return to her), and as he tended the sheep he would stare longingly at the blue distance; and sometimes the old mother would have to come and lead him home.

But of other things, he remembered nothing.

Do You Want Science Fiction Movies?

We address this question to all lovers of science fiction.

Motion picture companies are asking this question, too. But despite the success of science fiction in this country, and the rapidly growing reading public, the number of science fiction movies that have appeared in America have been pitifully few.

"Metropolis" and "By Rocket To The Moon" were German films; only "Just Imagine" which was after all a humorous rather than a realistic film, "The Myste-

rious Island" and one or two others have been filmed in America.

Now comes news that Universal is filming "Frankenstein," and that R-K-O has a film resembling the "Mysterious Island." But these few films are mere crumbs thrown to the hungry lover of science fiction. And even the millions who do not read science fiction, who are lovers of adventure, and exploration in new places and times, are becoming tired of the monotony of sex, gangster and war pictures.

Do You want Science Fiction Movies?

If you do, you have but to make yourself heard. Many of our readers are writing to film companies to make their desires known. BUT THAT IS NOT ENOUGH! Film companies are guided by the wishes of thousands and tens of thousands, not by a few letters here and there.

Wonder Stories Will Make Your Demands Count

We are organizing a gigantic petition signed by all those who want science fiction movies and will present this petition to the large motion picture companies. IT IS UP TO YOU as lovers of science fiction to make this a success.

Get Five Signatures to This Petition

and return them to us at once. We will gather them together and show the motion picture companies the enormous demand for science fiction movies.

Sign this petition yourself, get four other signatures of your friends and relatives and return them to us. We will do the rest!

EDITOR, WONDER STORIES, 98 Park Place, New York.

We the undersigned, herewith add our voices to the great demand of lovers of science fiction, for the production of a reasonable number of Science Fiction Movies in America. If such pictures are produced, we will support them loyally and urge our friends to do likewise.

(Name—Please write plainly)	(Address)
(Name)	(Address)



Science Questions and Answers



This department is conducted for the benefit of readers who have of correspondence received makes it impractical also, to print answers as pertinent queries on modern scientific facts. As space is limited we cannot stone as we receive questions. However, questions of general interest will undertake to answer more than three questions for each letter. The flood

The Sun's Temperature
Editor Science Questions and Answers:
Would you please answer the following ques-

tions:

1. What is the gravity of the sun? What is its probable temperature?

2. If any object were in free space, would it fall down or up, or would it stay in one place?
3. Of what are the rings of Saturn composed?

Peter A. Lovasik,

812 Center St.,

Tarentum, Pa.

(1. By the "sun's gravity" we assume that our correspondent means the surface gravitation or the sun. This is equal to mere than 28 times the surface gravitation of the earth, and a 150 pound man at the surface of the sun (this means meour the surface, or the sun being gaseous has no definite surface) would weigh 4200 pounds.

The surface temperature of the sun is about 6000 degrees Centigrade. Calculations on the sun's interior temperature by some astronomers place it hetween 375 and 455 million degrees. Jeans in his "Universe Around Us" believes that a figure of about 55,000,000 degrees is nearer the truth.

2. In free space there is no "up" or "down," A body placed in free space would be subject to all the gravitational forces in the universe. Every material body would stract it with a force proportional to its mass and inversely proportional to the square of the distance. Our body would be acted upon, then, by the resultant of all these gravitational pulls and would move in the direction of the resultant pull.

3. The rings of Satura consist of an in-calculable number of particles of material: each one a satellite of Satura and revolving about it in fixed orbits. In various parts of the rings the density of the materials vary, and it is possible that some of it consists of material hardly more dense than gases. Others of the particles are of a respectable size and may compare lawerably with the smaller of the asteroids—**Editor.**)

Materials for Space Ships Editor Science Questions and Answers: Would you please answer the following ones

tions:

1. What would be the most suitable material to be used as windows for a space ship?

2. What metal would be the most suitable in

the construction of a space ship?
Theodore Weitz,
609 Sixth Ave., South,

Minneapolis, Minn.
(1. The requirements for the windows of a space ship are of course not well known. All

space ship are of course not well known. All that can be offered are hypotheses, and upon these hypotheses the hest material can be suggested.

The vindow should permit the entry into the ship of the life giving ultravollet rays of the san, but should not permit too much of rays. For in space there will be little danger of freeing in a ship, the danger rather will be of overheading. The activate creates to resist any attenses that might be transmitted to it through the ship, and he strong enough tween the interior of the ship and the vacuum of space.

Quartz does permit the passage of ultraviolet rays, but unfortunately it permits too easy passage of the still shorter rays such as the X-rays. It is prohable that some development of quartz to bar out X-rays and shorter rays that emanate from the sun, will result as a material for space ship windows.

rays that emanate from the sun, will result as a material for space ship windows.

2. The material of which a space ship is a constant of the control of the

Soundings

Editor Science Questions and Answers:

1. What are soundings at sea and how are they taken?

What we have taken?
 If a weight were fastened on the end of a wire and lowered into a sea of great depth will the weight or wire break, and if so wby?
 Ole Johnson,
 Swan River,

Showing how a beam of sunlight is broken up by a prism into the spectrum of worked longer. The Worker House of Science — Mc Fee) of Science

(1. Soundings are measurements taken of the depth of bedies of vaster. A number of methods are in use, the simplest being to lower a weight into the water by a metal wire and to observe how deeply it goes. The difficulty with this method is that currents under the work of the depth of the depth of the work of the depth of the work of the depth of the work of the work of the depth of the depth

Another method used in deep sea soundings to lower a two life of which are and having a piston opening at one oud. The extent of the water of the piston gives the piston gives the depth to which the water on the piston gives the depth to which the tube has gene. This is more accurate for it does not depend upon the length of 62.5 pounds per cubic foot. For each foot of depth therefore the compression on the piston should be sequal to shout 4.50 pounds should be a compression cupied to be a 4.200 pounds per square inch. Naturally the tube must be strong enough to bear this and greater must be strong enough to be set this and greater

Lift the weight were solid, there should be no fear of having it crushed. If the metal wire were quite thin however, and there were appreciably strong currents at a great depth the wire might be hroken by the stresses on the Andian trying to pull the weight up the stresses on it and a depth of a mile or more, the wire might be broken—Editor.)

The Spectrum

Editor Science Questions and Answers:

Could you explain to me the operation of a prism which breaks up white light into the specrum? Also just what parts of the spectrum do the various colors fall? How do the colors differ? Glenn Winterhalter,

241 Agnew Ave., Pittsburgh, Pa.

(The prism is merely a piece of glass or fully transparent material with side not parallel. When sunlight falls upon it the various components of the light are reflected through the prism at various angles, these angles depending upon the wavelength of the component. When the beam is finally refracted from the prism, the various components have already been separated and appear to us as different colors.

For example, the difference between color sensations to us, is based upon the difference in the wavelength of the light beam. Red light has a longer wavelength than orange light and oranga longer than yellow. The

longer the wavelength of the light the fewer the number of vibrations per second. Therefore in the spectrum composed of all the primary colors, from red at one end to violet at the other, we are made aware of the different colors by the difference in the number of vibrations per second that reach our eyes.

vibrations per second that reach our eyes. In passing sunlight through a prism, the light is broken into the various component wavelengths. The violet light is bent through the prism more than the blue and the blue more than the green. The red is bent least. It happens therefore that the bending of the light rays is dependant upon the frequency of

In the accompanying diagram the location of the various colors in the spectrum are shown.—Editor.)

The Elements of Matter Editor Science Questions and Answers:

Editor Science Questions and Answers:
Could you please print a list of all the elements with their atomic weights? Also how is
it possible from the atomic weights to discover
how many protons and electrons each element has?

Mannie Samuels,

322 Belmont Ave., Newark, N. J.

(The list of all the known elements are presented herewith. There are 32 elements which are supposed to comprise all matter. It is noted that numbers 55 and 67 are missing. (Continued on page 808)

The Keader Speaks

In this department we shall publish every month your opinions. After all, this is your magazine and it is edited for you. If we fall down on the choice of our stories, or if the 'editorial board slips up occasionally, it is up to you to voice your opinion. It makes no difference whether your letter is complimentary, critical, or whether it contains

a good old-fashioned brick hat. All are equally welcome. All of you letters, as much as space will allow, will be published here for the hench of all. Due to the large indux of mail, no communications to this depart ment are answered individually unless 25c in stamps to cover time and postage is remitted.

From British Guiana Editor WONDER STORIES:

As a regular reader of your magazine I am writing to add my quota of praise in support of Dr. Gerritsen's facts in his letter from Holland

and published in your August issue.
You are now hearing from British Guiana on the South American continent, and am ready and willing to agree with you that this magazine is read in every part of the world.

read in every part of the world.

I am in legal practice here and am a regular subscriber, and exceedingly interested in the subscriber, and exceedingly interested in the hyperical subscriber, and exceedingly interested in the hyperical subscriber, and exceeding the subscriber in t

mineral and forest resources of the hinterland. Gold, diamonds, hauxite and other va'uable min-eral resources are to be found in ahundance not to mention the well known Greenheart and Mora to mention the well known Greenheart and Moratimbers. The government surveyors are now
defected the continue of the continue tender my congratulations to the entire staff and

contributors for maintaining your high standard.

Ahraham Vanier, Solicitor,

Victoria Hotel, Georgetown, Demerara, British Guiana

(It is quite stimulating to get a letter from another country. Every part of the globe, every country is represented in the roster of Wonder Stories. It is encouraging to know that even Stories. It is encouraging to know that even in a country so little developed as British Guiana the latest scientific instruments are transforming things. We will always find it a pleasure to bear frogm Mr. Vanier, and to learn more about the natural wonders of Guiana.—Editor.)

Another Science Fiction Movie Editor, WONDER STORIES: Our campaign for more science fiction motion

pictures is resulting in huge success. First Universal gave us "Frankenstein" and now-now R-K-O, I am happy to announce, is making

"Greation" As you all know the plot of "Frankenstein," I will not retell it here. However, I am positive you would all be very interested in knowing a bit more about "Greation." It will he a modern story of weird adventure. A yach is canght in a tropical storm. As it is driven near to a rocky shore, an earth shock dislodges the side of a cliff, revealing a subterranean passage. Helpless before the storm, the yacht is carried Helpiess before the storm, the yacra is called into the aperture to emerge finally in a world peopled by giant heast of another age. The man who furnished the dinosaurs for the silent film of "The Lost World" will supply the pre-historic monsters for this picture also, "Creation" ought to be an A-1 science fictional thriller!

Forrest J. Ackerman, 530 Staples Avenue San Francisco, Calif.

(There is no doubt but that motion picture con (There is no doubt but that motion picture com-panies will be willing, even cager to make science fiction movies if they can be assured that a public demand exists. The demand already exists in Germany and Russia. It is up to science fiction enthusiasts in America to create the demand here. Wonner Stories is working on a plan now to organize that demand and make it effective.

Progress of Science Fiction in England

Editor, WONDER STORIES:

I should like to acquaint your readers with the progress of the Ilford Science Literary Circle which is about to blossom out as the British Science Literary Association. Through the me-dium of my original letter, published in WONDER dum of my original letter, pushished in WONDER STORIES, nearly six months ago, we were honored with the interest of Mr. J. M. Walsh whose "Vandals of the Void" I understand was pub-lished in your QUARTERLY. Mr. Walsh is now one of our keenest supporters and a very valuable

memher of our movement.

Since I wrote to you in June last, things have been moving in Manchester, Liverpool and Black-pool, where branches of what I shall now call the "Association" are in the process of formation. As we hoped, we have inspired similar enthusiasts to ourseives to start circles in these

May I request still more enthusiasts to carry on with the good work, and spread our message still further afield within the old country? Walter H. Gillings, Honorable Secretary

British Science Literary Association, 123, Grove Green Road, Leytonstone, London, England-

(We are glad to know that we have helped in spreading the word of science fiction through the country of its great master, H. G. Wells. We see no reason, with the continued splendid work of Mr. Gillings, supported by our popular author, J. M. Walsh, why there should not be a knowledge. of Mr. Gillings, supported by our popular author, J. M. Walsh, why there should not be a branch of the Association in every hamlet of England. In this connection we have a letter from Mr. Lesile G. Johnson, 46, Mill Lane, Old Swan, Liverpool, England, who says in part "I have decided to try to form a branch of the Association in Liverpool. All keen science fection fans in British should give the movement their whole-hearted s As suggested by Mr. Glasser and Mrs. Harris, I have decided to write to the film companies re-I have decided to write to the film companies re-questing them to produce more scientific films instead of the sentimental rot they are producing at present. All keen fans should do likewise." We heartily concur with Mr. Johnson's sentiments.

Another letter showing the growth of interest in England comes from Mr. S. Nyman, 19 High Road, S. Tottenham, N. 15, London, Mr. Ny man says, "I am interested in the formation of such circles, as science fiction differs from ordi-nary fiction in being of some value beyond that of passing entertainment. The formation of science fiction cluhs would emphasize that value in creating an interest in science. If there are any readers of North London who are interested in the formation of a science fiction circle, communicate with me so that I can discuss the matter further." —Editor...)

ON LETTERS

BECAUSE of the large number of letcally impossible to print them all in
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BECAUSE of the large number of the two cally impossible to print them all individually impossible to print them all individually individual to the point as they can as brief and to the point as they can as this will add in their selection for any the print the print the print the print the print the letter in full; but in some cases, when lack of papec prowe will give a resume of it in a single paragraph.

Space Flight by 2000 A. D.?

Editor, WONDER STORIES:

I always read your "Reader Speaks" column and like to read other people's opinions concerning scientific subjects,

scientific subjects.

I have just concluded reading the September issue. I never read such a serial as "Exiles of the Moon" by Nathan Schachner and Arthur Zagat, a pair of creative hrains.

How about some Atlantis stories? I go for

em. Did you know that you can gain friends by writing in? I have gained two so far, and I am quite willing in fact glad to communicate with more (in the neighborhood of 16 to 22, male or

rate the stories in the September issue as follows

Excellent: "Exiles of the Moon."

"The 20th Century Medusa." "Mutiny in Space."
"Disc Men of Jupiter. "An Adventure on Eros."

By the way, I hesitate writing into your colum. Girls aren't permitted here from the letters I read. But I'll try almost anything once. Answer please: will the scientists discover a way to conquer space and discover new planets (actually, physically, I mean) by the year 2000? Miss Betty Toth,

3193 E. 134 St

(We see no reason why Miss 70th should feel that "no women wanted" exists in the "Reader Speake" Department. Some of the most interesting and stimulating letters we have received, have come from women, and some of the best

All men like to hear from intelligent women and to get a point of view different from that of the masculine mind.

We shall turn in our graves in despair if space travel has not come by the year 2000. Even the conservatives are willing to grant that it will come by that time.

will come by that time.

There are huge difficulties to be overcome before space flight does become an actuality. But
with the stimulation of the scientific societies,
such as the American Interplanetary Society here. and others ahroad, we believe the difficulties will be conquered progressively faster and faster.—

Editor.)

At a Speed Greater Than Light

Editor, WONDER STORIES:

I would like to contribute a few words which
may either clarify or hopelessly muddle the ques-

may either ciarity or noperessly manuale the ques-tion of time-travel. I am no great supporter of time traveling stories, for they seem to offer gross absurdities no matter how considered. Let us suppose that we do travel in a fourth dimension, which we call Time. Let us also sup-pose that the Lorenz-Fitzgerald contraction theory is fact rather than theory. Now, to catch up with a future event, it is obvious that we must travel at a speed greater than that of light, but since the Contraction precludes such a possibility, we see that we can neither send ourselves into the future nor can we see into the future while remaining in the present, for in the latter case we would have to send light waves after future events at a speed greater than that light! Am I correct?

Of course it is a comparatively easy matter to see into the past. As we watch the changing panorama of the sun through the spectroscope

(Continued on bage 809)

PAUL THE FAMOUS ARTIST ALSO Illustrates



PAUL, WONDER STORIES famous artist, is now illustrating for EVERYDAY SCIENCE AND MECHANICS. For many years Paul's illustrations have been a favorite with our readers and in been a laworite with our resuers and in this new magazine many wonderful scientific events have been featured by this popular artist. Most amazing are these illustrations which we are sure every reader of Wonder Stories will want to see.

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Announcement!

Be sure to turn to Page 807 of this issue and read the full page advertisement on the new scientific magazine, EVERYDAY SCIENCE AND MECHANICS. A big treat is in store especially for the readers of WONDER STORIES.

SCIENCE QUESTIONS

AND ANSWERS (Continued from page 805)

It has been believed that their natures have heen discovered, but this bas not been defi-nitely proved, and they are left open. Numbers 46, 61, and 75 have heen discov-

ered so recently that no absolute data on their atomic weights have been worked out yet. All elements are composed of a nucleus, All elements are composed of a nucleus, which consists of postively charged protons and negatively charged electrons. The excess of protons over electrons in the nucleus is halanced by the free or orbital electrons. Thus hydrogen has a nucleus of one proton and no electrons. There is thus one free electron to halance the proton. Hellum has four protons and two electrons in the nucleus. There are thus two Free electron to the proton when the protons and two electrons in the nucleus. There are thus two Free electrons to the proton that th tons and two electrons in the nucleus. There are thus two free electrons to balance. Lithium has six protons and three electrons, and are considered to the control of the

The full number of the weight is accepted as the number of protons hecause the protons compose hy far the greater part of the weight of the atom. In fact about 1820 electrons only weigh as much as one proton .- Editor.

The Known Elements

io.	Element			Wei
10.	Llement	Sym	pol	Wei
	Hydrogen		н	1.0
2	Heijum.		He	4.0
3	Lithlum.		Li	6.9
4	Berylijum		Be	9.1
5	Boron		B	11.0
	Carbon		č	12.0
6	Nitrogen		N	14.0
8	Nitrogen		Ö	
8	Oxygen			16.0
9	Fluorine		F	19.0
0	Neon.		Ne	20.2
2 3	Sodium		Na	23.0
2	Magnesium.		Mg	24.3
3	Aluminum		Al	27.1
ĭ	Silicon		Si	28.3
4 5 6 7	Phosphorus		P	
2	rnospnorus.	*****		31.0
ь	Sulphur		S	32.0
7	Chlorine		Cl	35.4
8	Argon		A	39.8
9	Potassium		K	39.1
ō	Calcium	,,,,,,,	Ca	40.0
ĭ	Scandium		Sc	44.1
	Titanium		Ti	
3	I itanium			48.1
3	Vanadium	*****	v	51.0
5	Chromium		Ċr	52.0
5	Manganese		Mn	54.9
6	Iron		Fe	55.8
7	Cobalt		Co	58.9
ġ	Nickel		Ni	58.6
9	Copper		Cu	63.5
ő	Copper		Zn	63.5
	Zinc			65.3
1	Gallium		Ga	69.9
2	Germanium		Ge	72.5
3	Arsenic		As	74.9
4	Selenium.		Se	79.2
5	Bromine		Br	79.9
6	Krypton		Kr	82.9
7	D. L. P.		Rh	
7	Rubidium			85.4
8	Strontium		Sr	87.€
9	Yttrium.	*****	Y	88.7
0	Zirconium		Zr	90.6
ĩ	Niobium		Nb	93.5
2	Molyhdenum		Mo	96.0
3	Masurium		Ma	30.0
4	Dark a large	*****		101.7
2	Ruthenium		Ru	101.7
5	Rhodium	*****	Rh	102.9
6	Paliadium		Pd	106.7
7	Silver.		Ag	107.8
8	Cadmium		Cd	112.4
9	Indium		In	114.8
ő	Tin		Sn	118.7
ĭ	Antimony	******	Sb	120.2
2	T-H		Te	127.5
ž	Tellurium			127.5
3	Iodine		1.	126.9
4	Xenon.		Xe	130.2
5	Caesium		Co	132.8

LCerdi Saudhore

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57 58 59 60 61 anthanum

Cerium

amarium. 62 63 64 65 66 67 68 amarium Suropium Sadolinium Ferbium Dysprosium Holmium

SCIENCE QUESTIONS AND ANSWERS

1	Lutecium	Lu	175.0
	Hafnium.	Hf	178.6
õ	Tantalum	To	181.5
3	Tungsten	ŵ	184.0
5	Rhenium	Re	
6	Osmium	Os.	190.9
6			
7	Iridium	Ir	193.1
8	Platinum	Pt	195.2
9	Gold	Au	197.2
O	Mercury	He	200.6
ĭ	Thallium	TI	204.0
2	Lead	Pb	207.20
3	Bismuth	Bi	208.0
4	Polonium	Po	210.0
5			*****
16	Niton	Nt	222.4
7			
8	Radium	Ra	226.0
19	Actinium	Ac	227
io	Thorium	Th	232.4
ĭ	Uranium X2	Ux2	234
2	Uranium	Ü	238.2

THE READER SPEAKS

(Continued from page 806)

we see the sun as it was about eight minutes be-fore we looked at it. Of course, as has often een illustrated on the pages of your magazine, travel into the past presents the same ridiculous problems as does travel into the future—such silly things as killing your own ancestors before you are born, etc.! Now this is becoming entirely too long-winded

Now this is becoming entirely too long-winded a document. I rather approve of most of your stories, although some are rather sadly lacking in some of the particulars which change "just stories" into literature. As one critic noted, college professors too often talk like eighth graders. happen to know that college professors are not

I thought "An Adventure on Eros," in your September issue, rather puerile. The English was

September issue, rather powerlie. The English was poor, the characters childish, science not too accurate, although the plot was unexpectedly considered to the control of the control of

(We believe that Mr. Decker has the wrong angle on time travelling. It is not a matter of catebing up with light waves, for light waves do not make future events, they only earry the pictures of past events. Thus the man on Mars, if he could, would see pictures of what happened on earth 200 seconds ago. The man on a pened on earth 200 seconds ago. The man on a planet near a distant sun would see what hap-pened on earth 10 to 100,000 years ago, or more. The idea of time travel is based upon the thought that time is a stream, and that just as

thought that time is a stream, and that just as space may be warped so may time, and the stream may curve back upon itself. It may be possible then, say proponents of time travel, to jump from one part of the stream to another. Naturally the whole idea is abstract and mathematical, but who can say that it does not provide the basis for thrilling stories—Editor.)

To Digest the Contents Editor, WONDER STORIES:

It has been about a year since I wrote a letter to Wonder Stonezs and having just finished the October issue, I feel the urge again. I want to take this opportunity, Mr. Editor, of congratulating you and your staff who make this magazine possible. Without a doubt the October issue is It has been about a year since I wrote a let-

one of the best you have yet published.

I read a story slowly and thoughtfully in order to digest the contents the better. I must say, however, that this issue compels me to break my rule of one reading at a time and re-read several of them. When I have to do that, then the stories are doubly good.
(Continued on page 810)

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See Page 726

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Rapidly increasing each day are the number of experiments in the Short Wave field—developments which are bringing to this branch of radio many bringing to this branch of radio many thousands of new "thrill seekers." Experimenters, as in the early days of Radio, Spatial in the early days of Radio, Spatial intering new inven-tions. Read in SHORT WAVE CRAFT, the Radio Experimenter's Magazine, how you can build your own Short Wave sets, both transmit-ters and receivers. SHORT WAVE CRAFT is exclusively a short wave magazine-the kind you have wished for so long.

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Photographic section—pictures of latest Transmitters for short wave sets and how to build them; to build them; to build them; to build them; types and how to build them; the short waves the short waves; Jura Sh

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THE READER SPEAKS

(Continued from page 809)

I don't know whether I like Colladay's "Return of the Cosmic Gun" in this issue better than "The Cosmic Gun." Nevertheless it is a good story and shows the ability of Mr. Colladay to weave several strands of thought into a compact story. To me that is a sign of a good writer— not always an interesting one—but a good one just the same

Death From the Stars" by Hilliard is all that "Death From the Stars" by Hilliard is all that you suggest in your comments. It is gruesome, gripping and intense. Mr. Hilliard does his best when writing about possible things which can be treated in a different and interesting way.

"Between Dimensions" hy Keith is one of the stories that I intend to re-read. I am not at all satisfied that I have absorbed much of this writ-er's theories and statements. It is indeed a catchy story and I liked it very much. Keith seems to be able to present scientific principles and ideas coupled with good narrative.

coupled with good narrative.
"Beyond the Star Curtain" rates pretty good;
"After 1,000,000 Years" by J. M. Walsh was the
best story of the issue. I have read it twice now
and it all seems plausible and possible.

Continue your comments at the beginning of each story, Mr. Editor. They are amusing, highly instructive and to me form a necessary adjunct of the story itself.

EDWIN E. MAUST. 513 Brockway Ave., Morgantown, W. Va.

Morgantown, W. Va. (Mr. Maust's sane, sober comments are greatly welcomed. We are glad to note that the stories are worth re-reading. That, after all, is the real difference hetween stories and "stories." Ordidifference netween stories and "stories." Ordi-nary action stories with no point nor purpose ex-cept to stir up one's blood lust are thrown away after one finished with them. They find their way ultimately to the garbage heap. It is a fact, on ultimately to the garbage heap. It is a fact, on the other hand, that readers of science fiction the other hand, that readers of science fiction save their magazines, value them and treasure them. We are sure that in years to come they will be valuable as historical documents of what men of the third and fourth decades of the 20th century thought about the possibilities of the fut-

Putting It Mildly Editor, WONDER STORIES:

Please accept my hest wishes for the success of the new large size of WONDER STORIES! I am sure your readers will welcome with open arms sure your readers will welcome with open arms the November issue of Wonder Strolles.

In the October issue the superh second installment of "Exiles of the Moon" takes first prize. The Zagat and Schachner team have no equal. Their story is one of the best you have

ever published.

The thrilling "Between Dimensions" by J. E. Keith came in a close second, while "The Return of the Cosmic Gun" by Morrison Colladay took third place

third place.
"Beyond the Star Curtain" by Garth Bentley,
"Death from the Stars" by A. Rowley Hilliard
and "After 1,000,000 Years" by J. M. Welsh,
took fourth, fifth and sixth places, in their respective order.

Paul produces the most realistic and lifelike illustration of any of your staff of illustrators. Without Paul's magnificent covers and his marve-lous works for the stories I believe your magazine would not have attained the high position it now occupies in the field of science fettion.

I read every science fettion magazine that is published and I am confident that "our" magazine.

the finest

is the finest.

Dr. David H. Keller is your finest author. It would be putting it mildly to state that every issue should contain one of his masterpieces.

Ed Earl Repp, Edmond Hamilton and Clark Ashton Smith are also very good authors. In closing let me wish you all the luck in the

world! FRED WALSEN 5609 East 17th Avenue,

Denver, Colo. (The opinions of our readers as to who is our overy best author still seem to vary considerably. Who is our best author still seem to vary considerably. Who is our best author, and why? Tell us, and we will print the hest letters. We expect there will be a lot of hot disputation about this where ver science fiction fans get together. But we will settle the question finally.—Editor.)

THE READER SPEAKS

Sails to the Skies

Editor, WONDER STORIES:

I have finished the October issue and feel confident in saying that the magazine is getting better each month. Give us more of Garth Bentley's, also stories by Francie Flagg, Cummings, Bridge and Newton.

To try to describe the merits of the magazine or to throw brickhats through your window would be a pretty tough proposition to me. Words cannot describe it; and after reading all the good

What a Grand Reunion

Editor, WONDER STORIES: Oh what a grand reunion we etf. (science fic Oh what a grand reunion we str. science no-tion) fans are going to have when the prodigal son returns home. The prodigal son, of course, is the large size Woorks Stonkers. We missed it for a whole year and wanted it back and now

you've obligingly consented to bring it back to us. That's one reason I've always liked "our" agazine so: we've been given everything we've wanted. Maybe you've been a little slow in giv-

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the Fall Wonder Stories Quarterly
In a style as original as it is thrilling Herr Burgel tells of what may In a style as original as it is thrilling Hore Burgel fells of what may happen to an earth people a thousand years hence. Suppose that a cosmic disaster were to strike the earth, the habitable portions of the globe slowly to freeze, and the source of the disaster to remain with the earth for two thousand years more? And suppose that science lay nelpless and that the only promise of help lay across the void of space, in the secrets of the now desolate moon? You can see that here is the basis for a gripping story. And it is!

We present also the first two stories written upon the basis of the Interplanetary Plot Contest announced in the last issue.

Ray Cummings

has written what he calls "my best story"

"The Derelict of Space" tragedy of time and space upon the first prize winning plot submitted by William D. Thurmond.

Clark Ashton Smith

has constructed in his own vivid colorful way the grim story of a gargantuan intellect

"The Planet Entity" upon the second prize winning plot of E. M. Johnston

Neil R. Jones

has done a masterly job in "The Asteroid of Death"

an interplanetary adventure of three worlds These stories and other startling interplanetary tales in the FALL WONDER STORIES QUARTERLY on all newsstands September

stories in the magazine, I would not have any idea of throwing brickhats.

All in all, it is an ideal magazine. It sup plies the needs of the scientist, the philosopher and the critic. For the price people pay, they get a good "bushel" of something scarce and hard

to find in this day and age. I am very glad the magazine is going back to the large size. The small size with the uneven pages never did eeem to "he up to par" with me. Of course the stories were just as good as ever, hut the emall size was unhandy.

And now I will close with the hope that Won-DER STORIES "sails to the skies" during the next century or so.

RALPH HIPPENSTEEL 3 Saratoga Ave., Cohoes, N. Y.

(Are we "up to par" now, Mr. Hippensteel? We have given our readers everything they have asked for, for two years—large size, good etories, smooth edges, and smooth paper. What more can we give you, readers?-Editor.)

ing us what we've asked for but anyway we've always gotten it in the end. What other magazine of etf. has covers exclusively by Paul? Or such wonderful editorials? Or the pictures of the

sine of stf. has covers excusavely up a man-such wonderful elifornial? Or the pictures of the new wonderful elifornial or the pictures of the Department?" Or, for that matter, any of the other unusual features of "our," mag. Nonett, elifornia, which is the pictures of "our," mag. Nonett, elifornia, or the celled death. In going out of existence it gives us marrobar sortics: "Affer 100,000 Years," Dimensions' (periedd tale), "Death from the Olimensions' (periedd tale), "Death from the of the Commercia along susperb), "The Return of the Commercia along susperb), "The Return of the Commercia along susperb," the State of the Commercia along susperb, "The Return of the Commercia elifornia of the Monnia ourse, that perfect serial, "Eachs of the Monnia", Sun Francies, Calif.

San Francisco, Cali (Now that Mr. Ackerman and the other host (Now that are, accerming and the other nost of well-wishers on the new size have seen it, and seen "the surprise" feature in the form of smooth paper, we want their comments. Just how do you like Wooden Srosates in its new dress? Write in and tell us.—Editor.)

(Continued on page 812)

CLASSIFIED ADVERTISEMENTS

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BE SURE to read the interesting announcement on page 814 of this issue-it's well worth spending a few minutes to read it.

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THE READER SPEAKS

(Continued from page 811)

No Such Thing As the Present Editor, WONDER STORIES:

The editor having so kindly published my rather lengthy letters in the October issue, I would like to supplement my remarks on time travelling with a few more.

In the April 1931 issue, Mr. Victor Endershy stated that "the present is pulled into existence by the future as much as it is pushed into existence hy the past." Close consideration of the sub-iect has led me to the conclusion that THERE IS NO SUCH THING AS THE PRESENT!

Although the above statement may seem to be rash. I believe I can substantiate it. If, for instance, we consider the hour through which we are now passing as being the present, we readily perceive that during the tenth minute the first nine are already in the past and that the remaining fifty seconds are still in the future. Thus we see that what we called the present is really composed of past, present and future.

Take a shorter period of time such as a second and call that the present. This second can be divided into three equal parts. During the second part, the first is in the past while the third is, as yet in the future. It is obvious, then, that no ter how small a fraction of a second we con sider as being the present, we can divide it into "present" and future in a manner similar to the way the whole second was divided. In turn, this "present" can itself be divided into "present" and future. And so on ad in-The result of all these repeated divisions will be that the present will dwindle to nothing.

From this we may conclude that time is composed solely of past and future. Mr. Endersby's statement would have to be changed to "The past is pushed out of existence by the future as much as the future is pulled into existence by the past." But this last statement appears to be fallacions since all science fiction writers believe in the existence of a present and all of them couldn't he wrong as this letter seems to indicate. Perhaps Ye Editor or some sagacious reader can offer definite proof that there is or is not a present. By doing so he will get me ont of a terrible mental fog into which I have been plunged by the above remarks.

MILTON KALETSKY, 2301 Morris Ave New York, N. Y.

(Ye Editors have been plunged into no less a mental fog than our correspondent. Modern science is tending toward the conclusion similar to that of Mr. Kaletsky. In fact, the view that is being accepted is that the past, present and future are all one. For our knowledge of time is based upon our consciousness. For example, a man may be day-dreaming, his mind wandering. Someone speaks to him, and although he hears, his conscious mind does not carry the message to his hrain for some time. Then he suddenly starts out of his mental reverie and it is as though he has just heard the message. It would seem, in fact, as though he were still hearing it. The message thus forms the present, yet it is the past. It all depends upon our sensat

The same is said to have been true of the great prehistoric beasts. They were so large that a really appreciable time passed between a sensation conveyed to them, and their perception of it. Therefore, it was possible to kill a beast, and have a few seconds pass before the beast realized that it was dead!

Then again Einstein showed that when two events appear to occur at the same time, they really may be occurring at different times, etc., etc. The number of points of view that can be brought forward to demolish the idea that the past, the present and the future are each watertight compartments of time, are endless. We invite ments of our readers .- Editor.)

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THE READER SPEAKS

The following are excerpts from but a few of the flood of letters from readers that greeted our announcement of the return of Wonder Stories to the large size. Naturally at the time of writing our correspondents did not know of the nature of the other surprises, such as the printing of Wonder Stories on a high grade of smooth paper.

The news that you have decided to return to the large size is the best that Twe beard in a made were to go to a smaller size and removing the word "Science" from the cover. The reason I bought my first copy was because of the name. Your covers could be greatly improved. The col-lete the control of the collection of the col-lete the control of the collection of the col-lete the control of the collection of the col-lete control of the collection of the col-sangeter and racketer stories. Mrs. D. E. Dixon

108 E. 81 St., New York.

Ten thousand cheers for Wonder Stories. Large size again, oh boyl It's the best news you've published. After the next issue comes out, Wonder Stories will again be a real magazine. No more bulkiness or rough edges.

READERS

If you like "Science Ouestions and Answers" in this magazine, you will find in our sister magazine, Everyday Science and Mechanics, a similar department, greatly expanded called "The Oracle." Look for it, you science fans!

"Exiles of the Moon" by Nathan Schachner and Arthur L. Zagat is the best serial you have run. It should have had a cover picture as it has been a long time since one of your serials had a cover-

had a cover.

"The Return of the Cosmie Gun" by Morrison
F. Colladay was an excellent scientific mysters
story. I hope you will sometime publish a
scientific mystery story again.

Jack Darrow,

4225 N. Spaulding Ave.
Chicago, Ill.

I am glad you are changing the magazine back to the large size with the smooth edges. I must write and compliment you on the "Exiles of the Moon." It sure is a story! It sure is a story! 3811 Federal Blvd.

The announcement of the change to the large size hit me just right. It is "swell news."

The cover on the October issue was peachy. Whatever you do, don't lose Paul.

May I say in conclusion that Mr. Gernsback's editionals are very interesting. May I say in conclusion the May I say in conclusion the editorials are very interesting.

Alvin Lybeck,

18431 Galway Ave.,

Hollis, N. Y.

CONGRATULATIONS—The best news I've heard in a long time is that WONDER STORTES is going back to the large size. I've been reading WONDER STORTES for a long time, and although I've missed a few, I've read the majority and liked almost all of them.

Engene Olshansky, 2163 Cropsey Ave., Brooklyn, N. Y.

Denver, Colo.



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Clark Ashton Smith has constructed in his own vivid color-ful way the grim story of a gargantuan intellect

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WHAT IS YOUR SCIENCE KNOWLEDGE?

- Of what materials is terrestrial life composed? (Page
- When did the Cro-Magnon Man live? (Page 731)
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- What is the effect of some of the ductless glands upon us? (Page 747)
- What force acts upon one inside a whirling body? (Page 765)
- What is the action of the gyroscope? (Page 764)
- What is the moon's terminator? (Page 796)
- How quickly does the moon's surface heat or cool as it is exposed to or turned away from the sun's glare? (Page 797)

BOOK REVIEW 27

THE CONQUEST OF SPACE by David Lasser, 275 pages, stiff cloth covers, il-lustrated, size 534x8. Published by Pen-guin Press, Inc., New York, Price \$3.00. Although newspapers and magazines have been filled with sensational material dealing with rocket experiments, and what they promise for the future, there has been as yet no book in English to explain their revolutionary significance.

The present volume is designed to fill the longfelt want for a popular book that shall cover the history of the rocket, its development to date, and the tremendous effect it is expected to exert upon our civilization.

Mr. Lasser, who is president of the American Interplanetary Society, and managing editor of WONDER STORIES, is, in the words of Dr. H. H. Sheldon, who wrote the Introduction, "a pioneer in this field, and perhaps in a hetter position than most anyone else in this country to speak with authority concerning experiments in every corner of the world." The publishing of this book, continued Dr. Sheldon, "will undoubtedly prove a milestone in the progress of rocket study in this country."

Mr. Lasser first traces the history and development of the rocket, and the history of the idea of interplanetary travel. He then explains how the rocket may be harnessed not only as a means of transportation that shall bring Europe and America within one hour of each other, but also as a terrible engine of warfare and a means to the peaceful conquest of the moon and the plan-

The second section of the hook is a thrilling narrative, written with scientific verisimilitude of the building of a gigantic space ship and a trip to the moon. The third section deals with the harriers to the space flight, the prospects of life upon other worlds and what men may find there to justify this unparalleled adventure into the unknown. The hook closes with a "Glimpse of the Future" in which the picture of an immense rocket port in New York is described and a round-the-world flight in which the rocket flyers actually beat the sun!

For all those who want an intimate glimpse into the vast possibilities and significance of the rocket, and how it may transform our lives, and bring the planets within our reach, this volume is cor-

THE FACE IN THE ABYSS by A. Merritt, 342 pages, stiff cloth covers, size 5½x7¾. Published by Horace Liveright, Inc., New York, Price \$2.00. The famous author of the famous "Moon Pool" has achieved a new triumph on this story of the

has achieved a new triumph on this story of the scientific wonders and grotesque magic woven about the stories of ancient Atlantis. With his powerful word pictures, Mr. Merritt describes a journey of four men into the land of the Incas to find the treasure of Atahualpa. They meet with a maiden of an evidently proud but ancient race and find her to he of the race

but ancient race and find her to he of the race of Atlantis, a race that had banished death, and as the girl says, "banished life."

Led on by the girl through many weird ex-periences they find in the abyss the source of a treasure more fabulous than that they originally sought, guarded by the Face that exerts hypnotic power over those who look upon it

The wonders of science, the trickery of magic are all blended in this story into a well told and exciting tale. It is done in Mr. Merritt's best manner and is recommended.

TO THE ENDS OF THE WORLD AND BACK by J. Walker McSpadden, 362 pages, illustrated, stiff cloth covers, size 5½x8¼. Published by Thomas Y. Crowell Co., New York, Price \$3.00.

Mr. McSpadden speaks in this book for the hunter of fossils, the man who uncarths specin of natural history and who frequently brings to life relics of the early history of the carth. As Mr. McSpadden says in his foreword, we hardly realize the infinite labor and care, the struggles against the forces of nature, against climate, hostile animal and insect life, that lie hehind

hostile animal and insect life, that lie hehind expeditions to remote parts of the globe. In this volume Mr. McSpadden presents nar-rative accounts of fifteen expeditions sent out by the American Museum of Natural History to varithe American Museum of Natural History to various parts of the globe. There is the trek to the West on the trail of the dinosaur; a search through the heart of China for relies of ancient man; adventures in shark fishing; exploring South American peake; adventures among the head hunters of South America, and in the Congo; searches for snakes in China; to the Antarctic for penguins; to Madagascar and Aus tralia for new hirds and beasts

The book is interestingly written and is filled with excellent photographs from the expeditions. It is cordially recommended.

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